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## NAVAJO TRADING

### Report

*Bonney* by  
B. Youngblood

Principal Agricultural Economist

Office of Experiment Stations, U. S. Department of Agriculture

Assisted by A. L. Walker, Soil Conservation Service, U. S. Department of Agriculture, and  
Wm. Brostrom, Indian Service, U. S. Department of the Interior

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Altogether this rather arduous undertaking was made both agreeable and interesting by congenial association with many good people, both white and Indian, an invigorating Navajo climate, and a natural environment of beauty and grandeur.

B. Youngblood,  
Principal Agricultural Economist,  
U. S. Department of Agriculture.

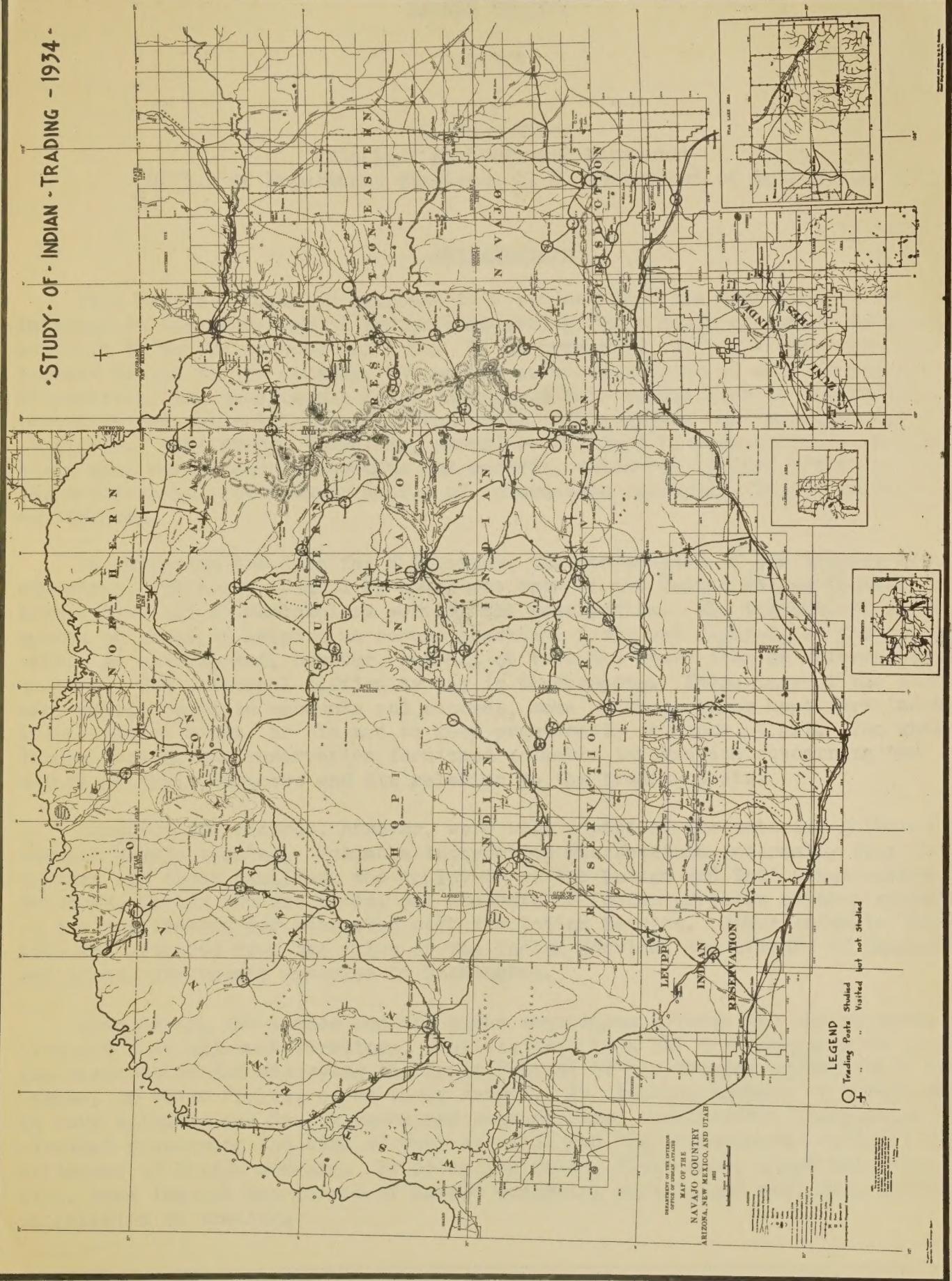
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• STUDY • OF • INDIAN • TRADING • - 1934 •





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### Introduction

This report is made in response to a request from the Secretary of the Interior to the Secretary of Agriculture asking for a study of Navajo trading in relation to Navajo economy and life. It is presented, not as a final analysis of trading in the Navajo country, but merely as the beginning of such an analysis. Necessarily, the conclusions drawn throughout this report must be considered as tentative and subject to verification until more complete and accurate data are available. This study, therefore, should be followed by more thorough analyses based upon more adequate accounts and records, which the traders agree to install and maintain as a continuing source of information concerning Navajo production and trading.

In gathering the data for this study, the cooperation of the traders was essential. This was assured by unanimous vote of the United Indian Traders Association and by wholesalers serving the reservation. The traders, as a rule, spared no pains in helping us secure essential facts and figures, so far as available. As anticipated, however, not all of them had every item of information requested. The principal difficulty lay in bookkeeping. While many of the traders kept fairly complete accounts and records, some of them either kept very incomplete sets of books, or claimed to keep practically no books at all. The wholesalers serving the reservation furnished valuable information concerning the nature of their business and its relation to the trading posts.

Accounts and records, however, were only a part of the material gathered concerning Navajo trading. Valuable information was obtained informally from the traders and their families, the employees of the Indian and Soil Conservation Services, Navajo men and women, and students of Indian problems neither residing on the reservation nor connected with the Indian Service. Other valuable information was gathered from the files of the Indian Service, the Library of Congress, and other Government agencies in Washington.

Altogether, the leader and his three associates covered the entire reservation and some adjacent territory, visiting more than 100 trading posts on or near the reservation and observing the daily routine of the Navajos in and about their hogans, in their fields, or on their ranges. By visiting numbers of Navajo women at work spinning and dyeing yarns and weaving rugs, considerable information was obtained concerning the kind of wool required and the economic and cultural significance of Navajo weaving. By attending fairs, field days, sings and ceremonies, some insight was gained of Navajo economic, social, and religious activities in relation to trading.

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\*Assisted by A. L. Walker, Soil Conservation Service, Department of Agriculture, and Wm. I. Goodwin and Wm. Brostrom, Indian Service, U. S. Department of the Interior.

### The Navajo Country

Some knowledge of the Navajo country seems essential to a clear understanding of Navajo trading. This vast area of desert to semi-desert country--including the Hopi reservation, which is completely surrounded by the Navajo--is situated in northeastern Arizona, northwestern New Mexico, southern Utah, and a small part of southwestern Colorado. It comprises an area estimated at about 14,383,000 acres of unsurveyed lands, including 2,280,960 acres of Hopi lands and an additional 888,480 acres of 160-acre allotments on the Public Domain, making a total estimated acreage of about 15,271,480 acres. Roughly, the area averages about 200 miles long from east to west and about 130 miles from north to south.

Topography. Concerning the topography of the Navajo country, Gregory<sup>1/</sup> says:

"In its larger topographic relations the Navajo country is part of the Colorado Plateau province, a region of flat-lying or slightly tilted rocks cut by canyons and surmounted by mesas and buttes. About 32 percent of the Navajo country lies between 6,000 and 7,000 feet above sea level, and 10 percent between 7,000 and 9,000 feet. Only 156 square miles out of a total of 25,725 square miles lie below 4,000 feet, and only 42 square miles exceed 9,000 feet. The extremes of relief are Navajo Mountain, 10,416 feet, and the mouth of Little Colorado River, 2,800 feet above sea level. Along the line of Bridge Canyon an extreme range in elevation of 7,000 feet is attained in a distance of 8 miles. Broadly characterized, the region is a plateau in which the depth of canyons about equals the height of mountains; in other words, the downward departures from a general surface at about 5,500 feet are nearly equal in amount to the upward departures."

Water Resources. The water resources of the Navajo country are decidedly limited in rainfall and snow and in underground water, while the evaporation rate is very high. The rain- and snow-fall vary considerably with elevation. Rainfall varies from 12 or more inches in the Chuska and other mountains to less than 6 inches in some of the lower elevations. At Fort Defiance, for example, elevation of about 7,000 feet, the mean annual rainfall from 1853 to 1913, inclusive, was about 12.8 inches<sup>2/</sup>. At Holbrook, elevation about 5,000 feet, the mean annual rainfall from 1888 to 1913, inclusive, was 9.15 inches. At Tuba City, elevation about 4,700 feet, the mean annual rainfall from 1897 to 1913, was 5.3 inches, and at Fruitland in the San Juan Valley, elevation about 5,200 feet, the mean annual rainfall from 1903 to 1913, inclusive, was 6.89 inches.

In addition to being limited, rainfall in the Navajo country is erratic. It is unevenly distributed not only from season to season, but also from year to year. Normally, the greater part of it falls in July, August, and September, and the lesser part in April, May, and June. It varies from year to year from about one-half to twice the normal. The rainfall consists mostly of local downpours which last at most but a few hours and usually but a few minutes. Gentle rainfalls such as characterize the more humid regions of the country are seldom experienced, though they sometimes occur.

<sup>1/</sup> Gregory, Herbert E., The Navajo Country: Water Supply Paper 380, U. S. Geological Survey, Washington, p. 21, 1916.

<sup>2/</sup> Gregory, p. 51.

Temperatures. Except for occasional dust, sand, and snow storms, the summer and much of the winter climate of the Navajo country is generally agreeable. The mean annual temperature, for example, at Fort Defiance—St. Michaels, Arizona, from 1899 to 1913 (except 1910), as reported by Gregory<sup>3/</sup>, was 47.6° F. The highest annual temperature reported in this period was 98° while the lowest was -24°. At Holbrook incomplete data from 1891 to 1913 indicated a mean annual temperature of 54.2°, an annual high of 106°, and an annual low of -21°. At Tuba City incomplete data from 1897 to 1913 indicated a mean annual temperature of 52.1°, highest temperature 108°, and lowest temperature -13°. As indicated, the annual and daily ranges of temperature are unusually wide. Gregory states that a daily range of about 40° is probably common to the whole reservation while ranges of 50° have been frequently experienced.

Snow. Gregory<sup>4/</sup> states that a snowfall of about 2 inches per annum is normal for Holbrook and 46.1 inches for St. Michaels, and that, in elevations above 7,000 feet, snow may fall any time between October 1 and June 1 and may remain on the ground for days or weeks.

Sunshine. The entire reservation is noted for its clear skies, averaging between 250 and 300 days a year.

Wind. Evidence of the action of winds is found in sand and dust storms and their erosive action on soils and rocks. A number of sand storms were encountered in our travels between April and October. Gregory<sup>5/</sup> reports the average wind velocity at Flagstaff, near the southwestern corner of the reservation, as varying from 5 to 10 miles per hour, and the prevailing direction as from the southwest. Wind and rains present the Navajo country with serious problems of wind and water erosion.

#### The Peoples of the Navajo Country

In addition to a knowledge of the Navajo country, an acquaintance with its peoples, past and present, seems essential to a proper understanding of trading.

The Ancient Peoples. The Navajo country is dotted over with the ruins of the dwelling places of the Ancient Peoples. Evidently, they had made noteworthy progress in agriculture, weaving, pottery, and basketry, and had carried on trade with other tribes. These relics of the past provide food for reflection on the processes of human evolution. In hospitable as the region in which they are found may at first appear, it has sustained a slowly evolving humanity over thousands of years. Through their crops, their arts and handicrafts, and other remains, they made important contributions to the Southwestern civilization.

The Hopis. The Hopis are cultural, if not lineal, descendants of the Ancient Peoples. They are a sedentary people who grow crops similar to those found in the ruins and who live in dwellings resembling the dwellings of the Ancient Peoples. They weave and make pottery and basketry and use kivas, as did the Ancient Peoples. After the coming of the Spanish, the Hopis acquired livestock and some additional crops. Though they keep horses and burros and graze sheep, goats, and cattle, their livestock enterprises are usually supplementary to their farming. They are essentially a self-sufficing agricultural people.

<sup>3/</sup> Gregory, p. 64.

<sup>4/</sup> Gregory, p. 49.

<sup>5/</sup> Gregory, p. 68.

Their fields are carefully selected with reference to soil and moisture. They plant especially adapted varieties of corn, beans, squashes, peaches, and other crops and tend them well. They are exceptionally successful as dry farmers and as storm-water irrigationists where water is available. In preserving their plant, animal, and human adaptations to the requirements of a very exacting natural environment, they have passed on some of the things which they probably inherited from the Ancient Peoples to the pastoral Navajos and others whose business it is to build a stable civilization in the arid Southwest.

Living in an arid country where water is limited and drought often severe, the Hopis are a conservative, frugal people. When the seasons are good, they store up food supplies and save money to carry them through periods of scarcity. Believing that the water supply is a function of the gods, the Hopis appeal to them ceremonially for rain and abundant harvests. Wisely enough, they reinforce faith with works; they help answer their prayers.

The Navajos. In many respects they Navajos differ widely from their neighbors, the Hopis, though in some respects they show cultural relationships. In contrast with the sedentary Hopis, the Navajos are a pastoral people and in conformity with their mode of life have no villages. They live, for the most part, in isolated hogans of rather temporary construction. In fact, most Navajo families, in the course of the year, live in two or more different hogans. The more stable of these, their winter hogan, is located on their winter grazing grounds; the other, a temporary shelter, is located on their summer ranges. In the more favored localities, some of the Navajo families have houses of two or more rooms, built of logs or stone after the fashion of frontier graziers.

Traditionally, the Navajos were a nomadic people, subsisting variously by hunting, warfare, raiding, foraging, and gathering the wild fruits of nature. Today, living on their reservation, they are a more settled people, deriving their real and monetary incomes from sheep, goats, lambs, rugs, silver jewelry, and to a certain extent, from food and feed crops grown in Hopi fashion. Navajo farming, however, seems much neglected. More of it might be done to good advantage. Some years the Navajos derive considerable income from the gathering of piñons for the market, and during the past two years they have been given much-needed employment on Public Works within the reservation.

The Navajos are a virile people; they have shown a remarkable capacity to adjust themselves to their surroundings and make necessary changes in their way of living. They have increased in numbers from about 9,000 in 1868 to about 50,000 at the present time. They are of good mentality and are by odds the largest tribe of full-blood Indians. In fact, they are the only tribe to become pastoral shepherds, an important step in human evolution. Though they have adopted both individuals and clans from other tribes of Indians, they are still remarkably free of European blood. Less than a dozen cases of intermarriage with whites were observed in the summer of 1934. Notwithstanding views expressed to the contrary, they are an industrious people. Navajo men on the Public Works appeared bright and capable, and the women, wherever found, were always busy cooking, herding, killing, and dressing mutton, milking goats, shearing sheep, lambing, spinning, dyeing, weaving, or looking after children. Normally, they are self-reliant and happy people.

The Navajos, moreover, are an aesthetic people. Many of their children draw remarkably well with colored crayons, and some of the Navajo youths show ability as painters of Navajo scenes in colors. Their artistic talent, however, finds its

best expression in the hammered silver of their silversmiths, the sand paintings of their chanters, and the blankets and rugs of their weavers. They also enjoy the beauties of their desert country.

Though warriors of note prior to 1863, they are basically a quiet, peace-loving people, who appeal to their gods in their ceremonies and sing for such good things of life as health, peace, beauty, rain, and abundant harvests. The white man has much to learn of the human qualities of the Navajo Indians.

Again, the Navajos are an acquisitive people. From Pueblo, Spanish-American, and Anglo-American peoples they have acquired many elements of economy and culture which they have made their own.

From these neighboring peoples, they, for example, have acquired their crops, livestock, arts, crafts, style of dress, and, probably, the rudiments of their ceremonies and sings. In some cases, notably their hand-spinning and weaving, silversmithing, and sand painting, they have by far outdistanced their instructors. Even today, for better or worse, they are acquiring more and more of the customs and tastes of the white civilization about them. Will they continue to make wise selections of the cultural elements which they acquire from us or will they acquire enough of our follies to submerge them economically and socially in our civilization? These probabilities present the Indian Service, the traders, and, in fact, all white men and women who serve the Navajos in any capacity, with definite responsibilities concerning the future of the Navajo people.

#### Navajo Problems

Notwithstanding the fact that the Navajos are in many respects a resourceful people, they are backward in matters pertaining to the conservation of their natural resources and to their adjustment to changing economic conditions requiring concerted action on the part of the community or the tribe. They, of course, suffered from the effects of the depression like other groups, but, long before the depression, certain forces had set to work tending to undermine their original self-reliance and to make them more and more dependent upon the commercial world for the means of subsistence.

Among such influences were a rapid increase in population without proportionate increase in the land supply and the development of tastes and preferences for the manufactured articles offered by the traders in exchange for the Indians' sheep, wool, rugs, and other products. Like the cotton farmers of the South, the more dependent the Navajos became upon the local merchants, the more they exerted themselves to increase the size of their flocks and their crops of wool and lambs. This, in turn, led to the overstocking of their ranges, overgrazing, the destruction of the vegetative cover, the walking of the flocks too far to feed and water and consequent soil erosion by wind and water, loss of underground water, storm water for irrigation, and livestock from starvation and exposure, and the production of inferior sheep, wool, lambs, rugs, and other products.

Buying, as they do, high-priced manufactured goods of the traders and paying for them with cheap raw materials, or buying in a protected and selling in an unprotected market, the Navajos have found it extremely difficult to obtain the necessities of life, to say nothing of comforts and luxuries, though subsisting under a very simple standard of Indian living.

Fortunately, the Navajos consume large quantities of the mutton which they produce and, in the absence of adequate supplies of vegetable foodstuffs, they consume all of the edible parts of the animals, a dietary custom which tends to provide them with needed minerals and vitamins. More and more, however, they are tempted to adopt the white man's dietary habits which call for increasing monetary incomes as well as increasing production of field crops, fruits and vegetables for home consumption. But, being primarily a nomadically inclined pastoral people, they are less prepared to store up animal and vegetable products for consumption in winter time and during years of drought or scarcity than, for example, their sedentary Hopi neighbors.

It appears not to be generally understood that the Navajos have such temporary homes and move about with their livestock so much in the course of a year that it seems to many of them impracticable to store up food supplies for a year or more ahead. Moreover, Navajo hospitality and a recognition of mutual responsibility in matters of welfare tend to work against the accumulation of food supplies. Visitor are fed as long as food is available, and if a particular family were known to have plenty of food, the chances are that relatives and friends would come and stay until the food supply was exhausted. This custom also explains one of the obstacles encountered by any Navajo who engages in trading. It seems not impracticable, therefore, from the Navajo viewpoint that these people exchange practically everything they produce with the trader for needed supplies of food and clothing. In doing so, they are merely using the trading post as their storeroom or warehouse.

Considering the nomadic tendencies of the Navajos and their consequent disinclination to accumulate more than they can carry about with them on their winter and summer ranges, a possible solution of this problem would be to establish processing plants for meats, fruits, and vegetables where reserves might be stored and delivered to the owners as needed. Craft shops might also be established for converting their raw materials, particularly their wool, pelts, skins, and hides into more valuable forms. If, for example, Navajo weavers were assured of an adequate supply of the right kind of wool for hand spinning and weaving, the quality of their rugs might be greatly improved, and the demand for them enhanced without interference with the form of their native art. In other words, the Navajos might live more securely and well as pastoral people if they were provided with facilities for processing and storing a larger proportion of the meats, field crops, fruits, and vegetables that they grow, or might grow, and their sheep, wool, rugs, and other products were improved in quality to the point that they might obtain more of the traders' merchandise for the surpluses that they produce.

Some problems listed. It is not the purpose of this report to dwell at length upon the varied problems confronting the Navajos. Some of them, however, are listed as forces affecting Navajo incomes, expenditures, and volumes of trading.

1. Erosion control.
2. Sheep improvement, including the development of a breed of sheep better suited to the conditions prevailing in the Navajo country and to the needs of the Navajo people.
3. Flock improvement, including a system of mating and culling.
4. Range improvement, including revegetation and maintenance.

5. Water development, including a better distribution of wells, springs, reservoirs, and diversion dams.
6. Native Indian crop protection and improvement. The hundreds of years of special adaptation to Navajo conditions in the corn, beans, squashes, and peaches, for example, should be guarded carefully against indiscriminate crossing with poorly adapted varieties introduced from the humid region.
7. The production of more adequate supplies of food and feed crops for family consumption.
8. The maintenance of more adequate food reserves for consumption during winters and years of scarcity. The question to be decided is whether processing of meats, fruits, and vegetables can be done about the hogans or whether community processing and storage plants should be developed.
9. Improvement of Navajo arts and crafts from both the utilitarian and the artistic viewpoints, adding leather working to silversmithing, spinning, and weaving.
10. The maintenance of a better balance between self-sufficing and commercial enterprises in Navajo economy.
11. Placing Navajo economy, so far as possible, on a cash basis and making the Navajos less dependent on store credits. Reducing the cost of credits to the Navajo's by reducing the credit risks, and placing necessary credits on a cash-plus-cost-of-credit basis.
12. Improvement of Navajo education, making it a vital force in Navajo evolution, enabling both young and adult to grapple more successfully with the natural, economic, and social factors affecting their well-being and happiness.
13. Progressive adjustments in the Navajo standard of living, enabling these people to earn more and live better on their own resources.
14. The development of a program of scientific research for the study of Navajo problems--technical, economic, and social.
15. Perfecting a more adequate extension organization, enabling extension specialists to serve all the communities of the entire reservation. This seems essential to progress in community life.
16. The development of a spirit of cooperation among the Navajos in the practical solution of the foregoing problems.

17. Helping the Navajos to evolve naturally and logically and to build an enlightened civilization on Navajo foundations. If Navajo trading is to be improved, these problems will have to be solved but, of course, they cannot be solved in a day. For the solution of many of them, at least a generation of time and concerted action will be required.

Readjustment and rehabilitation. When we reached the Navajo reservation early in April, it was a scene of great activity. Under the Indian Emergency Conservation Work, Navajo workmen were building reservoirs, diversion dams, roads, school buildings, and telephone lines, improving springs, and sinking wells. Under the Soil Conservation Service, Navajo workmen were also engaged in checking and preventing soil and wind erosion. The Commissioner and his specialists were reconstructing the Navajo educational system, consolidating the six former Navajo jurisdictions and building a new headquarters for the unified administration. As matters of economic adjustment and social rehabilitation, the new Indian policy was being put into practice.

Notwithstanding the apparent difficulties confronting the Navajos, they are a promising people. Their knowledge of nature may serve them well in the future; for example, they may be able to conserve their resources, use them to better advantage and learn, along with the white man, to adjust themselves progressively to changing economic and social conditions. If the Navajos are willing to face their problems frankly and to cooperate both among themselves and with the Indian Service in finding practical solutions, they have important contributions to make to human progress in the arid Southwest.

#### Navajo Trading

Indian trading as conducted in the Navajo country is probably our best remaining example of frontier commerce. Trade with the Indians began with the first settlements along the seaboard and served as the vanguard of European penetration into the interior in the struggle for supremacy on the North American continent. Adventurers entered the Indian country with boat or pack-horse loads of merchandise which they exchanged for Indian products. Transactions were by barter or the use of wampum or other currencies accepted as media of exchange. Except as modified by improvements in business ethics, changes in the type and variety of merchandise and Indian products exchanged and in the nature, scope, and effectiveness of Indian administration, Navajo trading is carried on today in much the same fashion as Indian trading in former times.

The trading posts on the reservation are necessarily distributed widely over the desert, often twenty miles or more apart. Many of the roads are unimproved and, though canyons and washes are numerous, bridges are relatively few. Between drought and sand, sudden downpours and mud, travel and the trucking of freight are at times slow, uncertain, and expensive. Most of the traders and their families live apart from usual contacts with white civilization. In the absence of white schools, the isolated trader must either employ a private tutor for his children or send them away to school. When he goes to town to attend to business affairs, or secure medical attention for a member of his family, he usually makes a round trip of from 60 to 300 miles by car.

Usually, the Indian products are brought into the trading posts and applied on accounts created for goods previously obtained by the Indians on personal

credit. If, after settlement of the account, a cash balance is due the Indian, he may receive it in the form of additional merchandise, in currency, or in credit balances. Normally, however, the Indians receive a relatively small proportion of the value of their products in cash. Their savings, if any, are invested in live-stock, beads, or silver jewelry, which serve in lieu of a bank account. From their sheep, they can draw income only twice a year, when their wool and lamb crops are ready for market.

The Traders. Most of the traders visited on the reservation were of old Anglo-American stock, while a few of them were of Spanish or Indian descent. Three full-blood Navajos operate trading posts in the Navajo reservation and a number of Hopis operate stores and trading posts in the Hopi villages. Four white traders visited had wives and children of Indian descent.

Services Rendered by Traders. In the course of the year, the traders render a diversity of services to the Indian community. When he enters upon the trading post business, he, of course, provides a trading post building which includes a salesroom and, in most cases, living quarters for his family and help. While in most cases the living quarters form a part of the trading post building, in some cases they are provided by a separate residence. In some cases, the necessary warehouse space is also a part of the trading post building, while in others the warehouse space is provided in separate buildings. Ordinarily, a camp hogan is provided for the use of Indians coming from a distance to trade. Except where the trading post is located at a school, hospital, or other Government establishment, the cluster of trading post buildings stands out alone on the desert landscape.

The trader equips his buildings with the usual trading facilities and stocks his store with merchandise of the kinds usually demanded by the Navajos. This consists primarily of staple dry goods, groceries, tobaccos, hardware, Indian jewelry, and minor items of Indian luxury. At some of the more centrally-located trading posts, such, for example, as Fort Defiance, Shiprock, and Tuba City, the stocks are more diversified but still of a type that appeals primarily to the Indian trade. Stocks of dress clothing for men and women, drugs, cosmetics, and notions, such as are normally found in the stores of the towns and cities nearby, are very exceptional.

The trader extends unsecured credit on open accounts in anticipation of the Indians' wool and lamb crops and he also extends minor credits secured by pawn, including silver bracelets, rings, and belts, beads, guns, saddle blankets, rugs or other articles of value. Most traders advance provisions, wool, and dyes to the women for the weaving of rugs. The rug income is of greater economic significance to the Navajos than the values involved would indicate. It is practically the only income they can normally depend upon between wool and lamb marketing seasons. In addition, the rug as a work of art has its cultural values which cannot be ignored. Many of the traders interviewed advance provisions and bar silver to the silversmiths. Apparently there were no silversmiths in the vicinity of about half of the trading posts.

Most traders counsel the Indians on business and personal affairs. With few exceptions, they, at one time or another, have advised the Indians relative to sheep breeding and wool, lamb, and rug improvement from the viewpoint of the commercial markets. In these matters, they have usually cooperated with the wholesalers who deal in Indian products, and with the employees of the Indian Service. In some cases the trader also cooperates with representatives of Indian advance-

ment organizations in the promotion of the use of the better types of old Indian blanket and rug designs.

The traders are also called upon frequently for aid and advice concerning Indian family and community affairs, such as marital difficulties, illness, deaths, and inheritances. Some traders are doubtless better counselors than others, while some of them refrain as much as possible from acting as counselors of the Indians on the theory that this is a function of the Indian Service. They usually cooperate with the Government in the matter of dipping sheep and goats for scabies, and in many cases, advance the Indians their dipping fees. The Indians, however, insist upon the counsel and advice of the trader, or of an employee of the Indian Service, and this insistence should be fully satisfied as it presents an opportunity to the employees of the Indian Service to understand Navajo psychology, gain Navajo confidence and render important services to the Navajo community. Needless to say, a person who would gain the confidence of the Navajos must be properly introduced by a person who already holds their confidence. Many of the traders provision sings and ceremonies either by outright donations, or more commonly, the sale of merchandise on credit. This is done, in part, to accommodate the Indians and, in part, to secure Indian good will and patronage. For example, it is said to be advantageous for a resourceful trader to originate a three-day squaw dance in the vicinity of another trader's trading post, move half way between this trading post and that of the trader to be benefitted on the second night, and end on the third or last night in the vicinity of the trading post to be benefitted.

#### The Trading Posts

The Establishment of Trading Posts. Before the arrival of the white man in the Southwest, the Navajos evidently bartered with other Indians, and before the establishment of fixed trading posts, they traded more or less with white men along the borders of their country. Fixed trading posts date from about the time of the return of the Navajos from Bosque Redondo in 1868. The authentic dates of establishment of each and every trading post studied were not available but, according to the views of some 49 traders, two of the trading posts visited were established between 1870 and 1879, presumably around 1870; 2 between 1880 and 1889; 7 between 1890 and 1899; 14 between 1900 and 1909; 15 between 1910 and 1919; and 9 between 1920 and 1929. These figures, of course, apply only to the trading posts studied, not to the establishment of some 30 odd trading posts on the reservation not studied.

It appears, however, that the bulk of present-day trading posts was established after 1890 and that the most active period of trading post establishment was from 1900 to the present time.

Within the bounds of the present reservation, only three of the trading posts studied were unlicensed; these were on deeded lands. However, just off the reservation and in the towns along the borders, such as Gallup, Manuelito, Holbrook, Winslow, Flagstaff, and Farmington, there are many unlicensed trading posts and business establishments receiving more or less Navajo patronage. These, of course, present problems in the administration of Indian trading, but for lack of time and personnel, could not be included in the present study. The fact remains, however, that the bulk of Navajo trading is with the licensed traders on the reservation and, with the extension of Navajo boundaries, a number of trading posts that were unlicensed in the summer of 1934 will doubtless apply for licenses.

Years in Business. Of 45 licensed traders studied, 14 had been in business from 1 to 5 years; 12 from 6 to 10 years; 10 from 11 to 15 years; 4 from 16 to 20 years; 4 from 21 to 25 years; and only one had been in business as long as 30 years.

Distance from Wholesaler. None of the posts studied were 20 miles or less from a wholesale house; 14 are from 21 to 40 miles; 19 from 41 to 80 miles; 9 from 81 to 120 miles; 6 from 121 to 160 miles; and 2 from 161 to 200 miles, the last two being 165 and 185 miles, respectively, from the wholesaler.

Distance from Indian Agency. The distance of the trading post from the nearest agency, (Fort Defiance, Crown Point, Shiprock, Tuba City, Keams Canyon, and Leupp) is an item of importance in the supervision of trading and marketing. Of 50 trading posts studied, 17 are from 0 to 25 miles; 17 from 26 to 50 miles; 12 from 51 to 75 miles; 2 from 76 to 100 miles; and 2 between 101 and 125 miles from the agency. Had the distances been measured from the new central agency near Fort Defiance, they would have been materially greater than those reported.

Traders' Ages. Of 45 traders whose ages were recorded, 9 were from 26 to 35; 14 from 36 to 45; 12 from 46 to 55; and 10 were from 56 to 65 years of age.

Traders' Experience. Of 43 traders reporting their experience in trading, 6 had from 1 to 5 years; 7 had 6 to 10 years; 8 had 11 to 15 years; 9 had 16 to 20 years; 6 had 21 to 25 years; 5 had 26 to 30 years; and 2 had between 31 and 35 years of experience.

Managers' Salaries. The salaries of the hired managers of trading posts varied from as low as \$40.00 to as high as \$200.00 per month and perquisites added, including quarters, merchandise at cost or free groceries, fuel, lights, and laundry. The salary range was as follows: One manager drew \$40.00; one, \$50.00; four, \$100.00; one, \$125.00; four, \$150.00; two, \$200.00; one, \$100.00 plus 5 percent of the profits; one, \$100.00 plus 25 percent of the profits; and four received no fixed salaries but, in lieu thereof received one half of the net profits of the business. The managers working for a percentage of the net earnings claimed to own no share in the business.

Of the four managers who drew \$100.00 per month, two owned a one-third interest each, one owned a 45 percent interest, and one a 50 percent interest in the business. Of those who drew \$150.00 per month, two owned a 25 percent interest each in the business. The manager who drew \$100.00 plus 5 percent of the year's net profits owned a one-third interest in the business, while the manager who received \$100.00 plus 25 percent of the yearly net profits claimed to own no share in the business.

Experience of Clerks. Many of the traders had been clerks before they entered business for themselves. Of 44 clerks reporting their experience, 16 had from 1 to 5 years; 14 had from 6 to 10 years; 8 had from 11 to 15 years; 5 from 16 to 20 years; and one had 22 years of experience.

Clerks' Salaries. Of 50 trading posts studied, 31 hired clerks and 19 employed none. In the latter case, members of the trader's family helped wait on customers. The 31 stores hiring clerks employed 58. Of the 58 employed, 13 were Indians, - 3 Hopis and 10 Navajos. One clerk drew \$25.00, room and board; 2 drew \$30.00 each; 1 drew \$37.50, room and board; 3 drew \$40.00 each, 2 of whom received

room and board; 2 drew \$45.00 each, room and board; 19 drew \$50.00 each, 17 of whom received room and board; 1 drew \$55.00, with quarters; 3 drew \$60.00 each, with quarters, and 1 received board; 3 drew \$65.00 each, 2 of whom received room and board; 1 drew \$70.00 with quarters; 6 drew \$75.00, 5 of whom received room and board and 1 was furnished quarters only; 1 drew \$76.00; 3 drew \$85.00 each, 2 of whom were provided quarters and 1 received board only; 3 drew \$90.00 each, 2 of whom were provided quarters only and 1 received board only; 4 drew \$100.00 each; 3 of whom were provided quarters and 1 received board only; 1 drew \$121.00, with quarters only; 1 drew \$125.00 with quarters only; 2 drew \$150.00 each, 1 of whom was provided quarters only; and 1 drew \$250.00 a month.

Usually, the clerks were permitted to buy merchandise at wholesale, or wholesale plus 10 percent. In practically one-third of the cases, therefore, the salary paid clerks was \$50.00 each, room and board.

Wages of Indian Clerks. Of the 13 Indian Clerks employed by traders, 2 received \$30.00 each without quarters or board; 1 received \$40.00, room and board; 5 received \$50.00 each, 4 of whom received room and board; 1 received \$55.00 with quarters only; 1 received \$60.00; 1 received \$65.00; 1 received \$70.00 with quarters only; and 1 received \$85.00 a month. It is usual for Indian clerks to lodge and board themselves. The apparent exception, above, in the \$50.00 classification is explained by the fact that the clerks were members of the traders' families. Otherwise, Indian clerks received practically the same perquisites as white clerks.

Wages of Indian Labor. Of the 50 trading posts reporting daily wages paid Indian labor, when or as employed, 3 reported \$1.00 a day; 4 reported \$1.50; 34 reported \$2.00 to \$2.10; 2 reported \$2.25; 5 reported \$2.50; and 1 reported \$3.00 a day. In a few cases, traders reported paying \$3.00 a day for skilled labor, including stone masons and herders.

Most of the traders' families employed domestic help either by the month or by the day as needed. Of 15 traders reporting, 2 paid \$12.00; 1 paid \$16.00; 7 paid \$20.00; 1 paid \$25.00; and 5 paid \$30.00 a month. All regularly employed domestic help received room and board. Twenty dollars per month, room and board, therefore, appears to be the normal wage for domestic help on the reservation. Laundresses working by the day were reported to receive from \$1.00 to \$2.50 with meals. The wages quoted are not invariably paid in cash. Probably the greater part of such wages are expended at the trading post while some, either on or off the reservation, are said to be paid wholly or in part in tokens or credit slips.

Representative data could not be gathered concerning the earnings of silversmiths and weavers. Our impression, however, is that the income from these sources in terms of monthly or daily wages is low. In a few cases of extraordinarily skilled silversmiths and weavers, however, it was said that their incomes compared more favorably with that of skilled labor.

Where trading families live. Of 50 trading posts studied, 37 of the traders' families had quarters in the trading post building, while 13 had separate houses.

Construction of Buildings. Of the 64 trading posts and residences observed, 35 were built of rock, 16 of adobe, 5 of logs, and 8 were frame buildings.

Heating. Of 68 trading post buildings and residences, 46 were heated by stoves, 18 had fireplaces, and 4 were heated by furnaces.

Fuel. Of 50 trading posts studied, 22 burned both wood and coal, 22 burned wood only, and 6 burned coal only. With the exception of two traders who had bought coal in Gallup, the fuel used by the 50 traders studied was obtained locally from Indians.

Home Equipment and Facilities for Guests. Of the 50 trading posts studied, 37 had running hot and cold water and 13 carried water from a well. Thirty-five had bathtubs, 24 had indoor toilets, and 26 had outdoor toilets. Four operated tourist lodges as a part of their business and all but a few of the remainder served meals and furnished lodging at nominal cost as a convenience to Government employees or other visitors. Of the 50 trading posts studied, 43 provided camp hogans for the Indians while 7 did not.

Number of Families Served by Trading Posts. According to 50 traders interviewed, 21 served white and Indian families, while 29 served Indian families only. The 21 trading posts serving white families as well as Indians reported serving a total of 303 white families, or an average of slightly more than 14 white families each. The average for the bulk of the trading posts, however, was lower by virtue of the fact that one trading post served 100 white families, while 3 served 25 and 2 served 20 each.

The traders' estimates of the number of Indian families served are likely to exceed the total number of families actually residing in the trading areas of the trading posts for the reason that the same families may be counted by two or more competing traders. Presuming that there are 9,500 Navajo families on the reservation and 80 trading posts, there could be no more than an average of between 120 and 125 families per store at the present time. The following, however, are the traders' estimates: Three would venture no estimates, while the estimates of the remaining 47 totaled 6,349 families, or an average of 135 families each. The distribution of estimated families served more or less is shown in Tables 1 and 2, pages 13 and 14.

Table 1

Showing frequency distribution of  
47 traders' estimates of the number of families  
served by each trading post.  
Navajo-Hopi Reservation.

<u>Families Served</u>	<u>Number of Trading Posts Serving</u>
100 or less	30
101 to 200	9
201 to 300	5
301 to 400	1
401 to 500	1
501 to 600	1
Total	47

Table 2

Showing breakdown of the traders' estimates of the number of families served by each in the class serving 100 families or less. Navajo-Hopi Reservation.

<u>Families Served</u>	<u>Number of Trading Posts Serving</u>
25 or less	2
26 to 50	9
51 to 75	8
76 to 100	11
Total	30

It will be observed that about 25 percent of the 47 trading posts studied served 50 families or less, and about two-thirds of them served 100 families or less.

Estimated reductions in retail prices if trading were on a cash basis. This, of course, raises a hypothetical question. In the first place, it presumes that the Navajos are forward-looking and would save money if they had a place for its safe-keeping. As a matter of fact, they have no banking facilities and money with most of them is merely a medium of exchange, not a store of wealth.

Presuming, however, that it might be possible to place the Navajos on a cash trading basis, 37 traders made the following estimates of reduction which might be made in present credit prices: 4 thought that prices might be reduced 5 percent; 24, 10 percent; 7, 15 percent; and 2, 20 percent. In other words, about three-fourths of the traders reporting thought retail prices might be reduced 10 percent if trading were placed on a cash basis.

Ownership. Of 50 trading posts studied, 35 were individually owned and 15 were corporations, or partnerships. Some individual owners owned more than one trading post. For example, J. Lorenzo Hubbell, Jr., whose main store is at Oraibi, Arizona, reported that he owned branches at Greasewood, Pinon, and Black Mountain on the reservation, and another at Tenebito, off the reservation, but included in the proposed new boundary. Mr. Hubbell also operates a wholesale house at Winslow, Arizona. Mr. A. H. Lee, whose main store is at Ganado, Arizona, also reported owning Steamboat Canyon and Salina Springs Trading Posts. Mr. C. A. Wheeler, whose main store is at Sunrise Springs on patented land but bounded on all sides by the reservation, also reported owning the White Cone Trading Post in the Hopi reservation. Babbitt Brothers Trading Company, a corporation with main offices at Flagstaff, Arizona, reported that they owned a trading post at Cedar Ridge, and another at Tuba City, outright. The Warren Trading Post Company of Kayenta, Arizona, is one in which Babbitt Brothers Trading Company claimed a two-thirds and Keither Warren a one-third interest. The Red Lake Trading Post at Tonalea, Arizona, was reported owned 55 percent by Babbitt Brothers Trading Company and 45 percent by John P. O'Farrell. The Jeddito Trading Post was reported as a partnership in which Babbitt Brothers Trading Company owned 50 percent and Wilmer C. Roberts owned 50

percent. C. G. Shillingburg, whose main store is at Rough Rock, Arizona, also reported owning Round Top Trading Post at Ganado. Karl G. Ashcroft, who formerly owned the trading post at Greasewood Springs, reported that he had sold a half interest to C. M. Taylor. Mr. Ashcroft also stated that he had bought the trading post at Round Rock and had sold a half interest in it to Vernon Jack. The Crown Point Trading Company, a corporation, with headquarters at Crown Point, New Mexico, reported owning two stores at Crown Point on the reservation, and one at Thoreau off the reservation. S. K. Borum, who owns the trading post at Leupp, reported that he also owned a half interest in the trading post at Red Lake on the Leupp reservation. Hubert Richardson, who owns the trading post at Cameron, Arizona, also reported owning the trading post at Kaibeto, Arizona.

The Progressive Mercantile Company of Fruitland, New Mexico, just off the reservation, is a partnership owned equally by A. L. Foutz, Burton Dustin, W. C. Stolworthy, and Sheldon Dustin. This firm does both a wholesale and retail business. It reported that it owned no trading posts on the reservation. However, Sheldon Dustin and W. C. Stolworthy, partners in the Progressive Mercantile Company, reported they each individually owned a one-third interest in the Teec-Nos-Pos Trading Post. The remaining one-third interest in this trading post was reported owned by E. L. Foutz, a son of A. L. Foutz of the Progressive Mercantile Company. This was said to be the only trading post on the reservation in which any of the partners owning the Progressive Mercantile Company owned an interest. This company holds informal contracts with its regular trading post customers to furnish merchandise at wholesale (cost plus transportation delivered at Fruitland) plus 10 percent for handling. Exceptions were flour and foodstuffs on which the markups were 5 percent in the summer of 1934. These regular customers are extended credit between wool and lamb marketing seasons without interest. In fact, during the depression such accounts were carried for greater lengths of time. For a trader, however, to avail himself of these advantages, he agrees either to make all of his purchases through the Progressive Mercantile Company, or to pay this Company the usual 10 percent on regular items of merchandise purchased through other wholesale houses. In return for receiving practically all of a trader's business, the Progressive Mercantile Company accepts on account and finds markets for any and all Indian products, such as wool, lambs, rugs, pinons, hides and pelts.

#### Financial Condition of Trading Posts

The interpretations herein presented are indicative of the financial condition and, to an extent, the practices of the trading posts studied. They cover the years 1929 to 1934, or as much of this period as was covered by the data gathered from the traders. Included are figures covering assets, liabilities, equities, wholesale and retail prices, markups, sales, cost of merchandise sold, gross profit, operating expense, net profit and certain comparisons.

Assets, liabilities, and equities are computed from ordinary balance sheet statements. The term "equity" is used designedly to indicate proprietorship, or apparent solvency. In all cases, assets equal liabilities plus equity. The only other term requiring definition is markups, which is based upon delivered wholesale prices at the trading posts. If, for example, an article costs \$1.00 delivered at the trading post, and sells for \$1.50, the markup is \$0.50, or 50 percent of the wholesale cost. Our reason for using wholesale prices as the basis for computing markups is our desire to indicate the gross profit per article sold. The term "markup" is, of course, frequently expressed as a percentage of the retail price, which is lower than markup expressed as a percentage of the wholesale cost and, so used, does not indicate gross profit per article sold.

The profit and loss data were necessarily limited to 19 trading posts and to the year 1933 only. Of course, it would have been desirable could this analysis have included all of the trading posts studied and covered a number of years past. This, however, was impossible as the data gathered were not adequate for this purpose. Such an analysis can only be made after all of the trading posts have kept complete sets of accounts and records over a period of years.

The data presented, however, include more than 25 percent of all the licensed trading posts within the bounds of the reservation for the year 1933, and they will serve the useful purpose of bringing together certain information not heretofore available and calling attention to the need of additional information upon which to project possible future improvements in Navajo trading.

Assets, Liabilities and Equities. According to Table 3, p. 30, the average assets and equities over the period studied were lowest and the liabilities highest on or about January 1, 1933. The ratios of liabilities to assets stood at about 30 percent on January 1, 1932 and 1933, indicating that the trading posts on the Navajo reservation were probably on "dead center" from about 1930 until the initiation of Indian Emergency Conservation work and Soil Erosion Service work in the summer of 1933. Though the trading posts had not received any increased business resulting from Public Works payrolls until the latter half of 1933, it is interesting to note that the ratios of liabilities to assets declined between January 1, 1933 and January 1, 1934, from 29.3 percent to 25.4 percent, indicating improvement in equity, or proprietorship. This increase in equities, in turn, reflects the improvement in the purchasing power of the Navajo Indians brought about primarily by Indian employment on Public Works. Improvement of the economic condition of the Navajos, of course, is of two kinds, permanent and temporary--a permanent improvement of their material resources, on the one hand, and a temporary improvement of income enabling them to live out the depression, on the other. In the long run, or as Public Works employment tapers off, the Navajos will have to depend more and more upon their normal enterprises, such as sheep, wool, and lamb production and rug making or other handicrafts for their income.

Everything considered, the average liabilities were reasonably conservative throughout the years of intense depression. It will be noted from Tables 4 and 5, pp. 31 and 32, that even on January 1, 1933, before Public Works began, cash and total receivable exceeds total notes and accounts payable in a ratio of more than 1.5 to 1. A further element of safety is the fact that on the balance sheets the accounts receivable including pawn had been discounted an average of about 15 percent to cover possible losses. In examining the inventories, however, it was found that the traders more often than otherwise included household equipment and furnishings in their inventories of furniture and fixtures which obviously possessed little if any value or relation to the trading business. In trading post accounting, therefore, there is need for the complete segregation of the trader's personal expenditures from those of the business proper. Though the trader and his family necessarily live in or near the trading post building, they should live out of the net profits of the business, or from withdrawals from the capital account rather than out of the gross profits as an expense of the business.

A careful examination of trading post building values might disclose the fact that they are higher than replacement values. It might be more conservative, therefore, if the buildings were assigned a replacement value, or an arbitrated value, in which the good will and site value might, or might not, be considered. If good will and situation have any values, they should be considered as having been created

probably as much by the Indians as by the traders. It appeared, however, that investors buying trading posts have been willing to pay something for good will and site value which in the future might be arbitrated on the basis of the gross sales the year preceding the sale of the business. Yet, eliminating the value of the buildings entirely from the picture, the fact remains that on the average the trading posts studied possessed considerable of the element of solvency throughout the depression.

It must be remembered, however, that not all trading posts were in average condition throughout the depression. Some were in better than average while others were in worse than average condition, as indicated in Tables 6 to 11, pp. inclusive.

Frequency Distributions of Assets, Liabilities, and Equities, 1929 to 1934, inclusive. In Tables 6 to 11, inclusive, frequency distributions are made of assets, liabilities, and equities for the years 1929 to 1934, inclusive. As the tables indicate, some of the trading posts at least were not in a highly solvent condition throughout the depression and, had creditors pushed collections when assets were frozen, some failures might have occurred. It is commendable, therefore, of both creditors and traders that out of about 80 trading posts on the reservation proper, only three cases of business failure were reported to the writers.

Table 3

Showing total and average assets, liabilities, equities of the proprietors, and the ratio of liabilities to assets on January 1 of each of the years 1929, 1930, 1931, 1932, 1933, 1934, Navajo-Hopi Reservation.

January 1 Year	Number of Posts	Total			Average			Ratio of Liabilities to Equity
		Assets	Liabilities	Equity	Assets	Liabilities	Equity	
1929	20	\$ 729,092.52	\$146,571.12	\$582,521.40	\$36,454.63	\$ 7,328.56	\$29,126.07	20.1%
1930	24	781,147.05	188,346.08	592,800.97	32,547.79	7,847.75	24,700.04	24.1%
1931	29	941,224.96	213,255.33	727,969.63	32,456.03	7,353.63	25,102.40	22.7%
1932	35	982,536.42	295,124.46	687,411.96	28,072.47	8,432.13	19,640.34	30.0%
1933	37	1,001,092.12	293,533.90	707,558.22	27,056.55	7,933.35	19,123.20	29.3%
1934	37	1,063,543.80	270,306.81	793,236.99	28,744.43	7,305.59	21,438.84	25.4%

To determine the total assets, liabilities, and equities for all the trading posts on the reservation would have required the gathering of data from all the trading posts. Assuming that there are 75 licensed and 6 unlicensed trading posts, or a total of 81, on the reservation, the number for which data were gathered, 37, is less than half the total number within existing boundaries in 1934. However, since the 37 upon which data were gathered for the year 1934 are probably larger than the average, it might be fair to assume that the total assets of the 37 trading posts in 1934 represent approximately one-half of the total assets of all trading posts within existing boundaries. If this is a correct assumption, then the total assets of all trading posts within existing boundaries, as reported by the traders on their annual balance sheets, probably amounted to about \$2,000,000 in 1934.

Table 4

Showing breakdown of total assets and liabilities  
of 37 trading posts on January 1, 1933,  
Navajo-Hopi Reservation.

Assets:

1. Merchandise*	\$258,362.49
2. Buildings	298,338.46
3. Furniture and fixtures	49,336.71
4. Other property	41,594.29
5. Cash	139,874.02
6. Accounts receivable**	217,636.54
7. Notes receivable	30,040.66
8. Pawns	28,360.58
9. Total receivables	\$276,037.78

Total assets ..... \$1,063,543.75

Liabilities:

1. Accounts payable	\$127,220.22
2. Notes payable	143,086.58
3. Total payables	\$270,306.80
4. Equity	793,236.95

Total liabilities and equity ..... \$1,063,543.75

\* Including Indian Products

\*\* In this item, the actual accounts receivable are discounted about 15%.

Table 5

Showing breakdown of average assets and liabilities  
of 37 trading posts on January 1, 1933,  
Navajo-Hopi Reservation.

Average Assets:

1. Merchandise*	\$ 6,982.77
2. Buildings	8,063.20
3. Furniture and fixtures	1,333.42
4. Other property	1,124.17
5. Cash	3,780.38
6. Accounts receivable**	5,882.07
7. Notes receivable	811.91
8. Pawns	766.50
9. Total average receivables	\$ 7,460.48

Total average assets ..... \$28,744.42

Average Liabilities:

1. Accounts payable	\$ 3,438.37
2. Notes payable	3,867.21
3. Total average payables	\$7,305.58
4. Equity	21,438.84

Total average liabilities and equity ..... \$28,744.42

\* Including Indian products

\*\* Discounted about 15% below actual.

Table 6

Showing frequency distributions of assets, liabilities, and equities, in thousands of dollars, of 20 trading posts on January 1, 1929, Navajo-Hopi Reservation.<sup>1/</sup>

Assets		Liabilities		Equities	
in Thousands : of Dollars	Frequency	in Thousands : of Dollars	Frequency	in Thousands : of Dollars	Frequency
.00 - 10.00	1	.00 - 5.00	7	.00 - 10.00	2
10.01 - 20.00	5	5.01 - 10.00	10	10.01 - 20.00	8
20.01 - 30.00	5	10.01 - 15.00	1	20.01 - 30.00	1
30.01 - 40.00	1	15.01 - 20.00	0	30.01 - 40.00	6
40.01 - 50.00	5	20.01 - 25.00	1	40.01 - 50.00	0
50.01 - 60.00	1	25.01 - 30.00	0	50.01 - 60.00	2
60.01 - 70.00	0	30.01 - 35.00	1	60.01 - 70.00	0
70.01 - 80.00	0			70.01 - 80.00	0
80.01 - 90.00	1			80.01 - 90.00	0
90.01 - 100.00	0			90.01 - 100.00	1
100.01 - 110.00	1				
Number of trading posts in distributions	20		20		20

<sup>1/</sup> In two cases, in which traders owned more than one trading post, the total assets, liabilities, and equities were divided by the number of trading posts owned by each before inclusion in this table.

Table 7

Showing frequency distributions of assets, liabilities and equities, in thousands of dollars, of 24 trading posts on January 1, 1930, Navajo-Hopi Reservation.<sup>1/</sup>

Assets		Liabilities		Equities	
In Thousands : of Dollars	Frequency	In Thousands : of Dollars	Frequency	In Thousands : of Dollars	Frequency
.00 - 10.00	1	.00 - 5.00	10	.00 - 10.00	2
10.01 - 20.00	6	5.01 - 10.00	10	10.01 - 20.00	11
20.01 - 30.00	8	10.01 - 15.00	2	20.01 - 30.00	4
30.01 - 40.00	1	15.01 - 20.00	1	30.01 - 40.00	5
40.01 - 50.00	6	20.01 - 25.00	0	40.01 - 50.00	1
50.01 - 60.00	0	25.01 - 30.00	0	50.01 - 60.00	0
60.01 - 70.00	0	30.01 - 35.00	0	60.01 - 70.00	0
70.01 - 80.00	0	35.01 - 40.00	0	70.01 - 80.00	0
80.01 - 90.00	0	40.01 - 45.00	0	80.01 - 90.00	1
90.01 - 100.00	1	45.01 - 50.00	0	90.01 - 100.00	0
100.01 - 110.00	1	50.01 - 55.00	0		
		55.01 - 60.00	1		
Number of trading posts in distributions	24		24		24

<sup>1/</sup> In two cases, in which traders owned more than one trading post, the total assets, liabilities, and equities were divided by the number of trading posts owned by each before inclusion in this table.

Table 8

Showing frequency distributions of assets, liabilities, and equities, in thousands of dollars, of 29 trading posts on January 1, 1931.  
Navajo-Hopi Reservation<sup>1/</sup>

Assets		Liabilities		Equities	
In Thousand of Dollars	Frequency	In Thousand of Dollars	Frequency	In Thousand of Dollars	Frequency
.00 - 10.00	1	.00 - 5.00	16	.00 - 10.00	3
10.01 - 20.00	8	5.01 - 10.00	10	10.01 - 20.00	11
20.01 - 30.00	9	10.01 - 15.00	0	20.01 - 30.00	6
30.01 - 40.00	1	15.01 - 20.00	2	30.01 - 40.00	5
40.01 - 50.00	5	20.01 - 25.00	0	40.01 - 50.00	2
50.01 - 60.00	2	25.01 - 30.00	0	50.01 - 60.00	1
60.01 - 70.00	1	30.01 - 35.00	0	60.01 - 70.00	0
70.01 - 80.00	1	35.01 - 40.00	0	70.01 - 80.00	0
80.01 - 90.00	0	40.01 - 45.00	0	80.01 - 90.00	0
90.01 - 100.00	1	45.01 - 50.00	0	90.01 - 100.00	1
		50.01 - 55.00	0		
		55.01 - 60.00	0		
		60.01 - 65.00	1		
Number of trading posts in distributions					
29		29		29	

<sup>1/</sup> In two cases, in which traders owned more than one trading post, the total assets, liabilities, and equities were divided by the number of trading posts owned by each before inclusion in this table.

Table 9

Showing frequency distributions of assets, liabilities, and equities, in thousands of dollars, of 35 trading posts on January 1, 1932,  
Navajo-Hopi Reservation<sup>1/</sup>

Assets		Liabilities		Equities	
In Thousand of Dollars	Frequency	In Thousands of Dollars	Frequency	In Thousand of Dollars	Frequency
.00 - 10.00	6	.00 - 5.00	16	.00 - 10.00	11
10.01 - 20.00	8	5.01 - 10.00	9	10.01 - 20.00	11
20.01 - 30.00	9	10.01 - 15.00	7	20.01 - 30.00	8
30.01 - 40.00	1	15.01 - 20.00	1	30.01 - 40.00	1
40.01 - 50.00	7	20.01 - 25.00	0	40.01 - 50.00	1
50.01 - 60.00	1	25.01 - 30.00	0	50.01 - 60.00	2
60.01 - 70.00	0	30.01 - 35.00	1	60.01 - 70.00	0
70.01 - 80.00	2	35.01 - 40.00	0	70.01 - 80.00	0
80.01 - 90.00	1	40.01 - 45.00	0	80.01 - 90.00	1
		45.01 - 50.00	0		
		55.01 - 55.00	0		
		55.01 - 60.00	0		
		60.01 - 65.00	1		
Number of trading posts in distribution					
35		35		35	

<sup>1/</sup> In two cases, in which traders owned more than one trading post, the total assets, liabilities, and equities were divided by the number of trading posts owned by each before inclusion in this table.

Table 10

Showing frequency distributions of assets, liabilities, and equities, in thousands of dollars, of 37 trading posts on January 1, 1933.  
Navajo-Hopi Reservation<sup>1/</sup>

Assets		Liabilities		Equities	
In Thousands of Dollars	Frequency	In Thousands of Dollars	Frequency	In Thousands of Dollars	Frequency
.00 - 10.00	4	.00 - 5.00	16	.00 - 10.00	13
10.01 - 20.00	13	5.01 - 10.00	15	10.01 - 20.00	12
20.01 - 30.00	8	10.01 - 15.00	2	20.01 - 30.00	8
30.01 - 40.00	7	15.01 - 20.00	1	30.01 - 40.00	0
40.01 - 50.00	1	20.01 - 25.00	1	40.01 - 50.00	1
50.01 - 60.00	2	25.01 - 30.00	0	50.01 - 60.00	2
60.01 - 70.00	0	30.01 - 35.00	1	60.01 - 70.00	0
70.01 - 80.00	0	35.01 - 40.00	0	70.01 - 80.00	0
80.01 - 90.00	2	40.01 - 45.00	1	80.01 - 90.00	1
Number of trading posts in distributions	37		37		37

1/ In two cases, in which traders owned more than one trading post, the total assets, liabilities, and equities were divided by the number of trading posts owned by each before inclusion in this table.

Table 11

Showing frequency distributions of assets, liabilities, and equities, in thousands of dollars, of 37 trading posts on January 1, 1934,  
Navajo-Hopi Reservation<sup>1/</sup>

Assets		Liabilities		Equities	
In Thousands of Dollars	Frequency	In Thousands of Dollars	Frequency	In Thousands of Dollars	Frequency
.00 - 10.00	2	.00 - 5.00	17	.00 - 10.00	11
10.01 - 20.00	17	5.01 - 10.00	11	10.01 - 20.00	13
20.01 - 30.00	7	10.01 - 15.00	1	20.01 - 30.00	4
30.01 - 40.00	1	15.01 - 20.00	0	30.01 - 40.00	5
40.01 - 50.00	5	20.01 - 25.00	6	40.01 - 50.00	0
50.01 - 60.00	3	25.01 - 30.00	1	50.01 - 60.00	2
60.01 - 70.00	0	30.01 - 35.00	0	60.01 - 70.00	1
70.01 - 80.00	1	35.01 - 40.00	1	70.01 - 80.00	1
80.01 - 90.00	1			80.01 - 90.00	0
Number of trading posts in distributions	37		37		37

1/ In two cases, in which traders owned more than one trading post, the total assets, liabilities, and equities were divided by the number of trading posts owned by each before inclusion in this table.

Tables 10 and 11, (see page 22), considered in connection with Table 1, indicate the interactions of assets, liabilities, and equities through the depression period. In these tables the ratio of liabilities to assets indicates the proportion of the value of the assets for which the business is obligated to others, such, for example, as wholesalers, banks, or other creditors. Conversely, the ratio of equity to assets indicates the percentage of net ownership in the business. If, for example, the total assets of a trading post are valued at \$100,000 and the liabilities amount to \$20,000 or 20 percent of the total assets, the net ownership is assumed to be \$80,000 or 80 percent of the total assets. These figures, if compared with those for business in general, throughout the depression, suggest that the trading posts in the Navajo country probably weathered the depression better than the average of American business.

Table 12

Showing ratio of liabilities to assets  
and, conversely, ratio of equity to assets.  
Navajo-Hopi Reservation.

Ratio of	January 1					
	1929	1930	1931	1932	1933	1934
Liabilities to assets .....	20.1%	24.1%	22.7%	30.0%	29.3%	25.4%
Equity to assets .....	79.9%	75.9%	77.3%	70.0%	70.7%	74.6%
Number of trading posts included in averages .....	20	24	29	35	37	37

Table 13

Showing frequency distributions of  
ratios of liabilities to assets,  
number of trading posts included in the distributions, and average  
and median ratios for the years 1929, 1930, 1931,  
1932, 1933, and 1934.  
Navajo-Hopi Reservation

Ratio of	Liabilities to assets	Frequencies					
		1929	1930	1931	1932	1933	1934
0.0% to 10%		6	5	9	9	8	8
10.1 to 20		8	9	9	4	6	8
20.1 to 30		1	3	4	8	8	8
30.1 to 40		2	4	3	3	3	1
40.1 to 50		1	0	2	1	2	4
50.1 to 60		0	2	0	2	1	5
60.1 to 70		1	0	0	0	5	0
70.1 to 80		1	0	2	5	2	1
80.1 to 90		0	1	0	1	1	2
90.1 to 100		0	0	0	1	1	0
Number of trading posts in distributions		20	24	29	35	37	37
Average		20.1%	24.1%	22.7%	30.0%	29.3%	25.4%
Median		18.6%	14.4%	17.5%	28.7%	24.9%	20.8%

Gross Sales

In Table 14 are presented the gross sales for stated numbers of trading posts for the years 1929 to 1933, inclusive. While the number of trading posts upon which data were gathered varied from year to year, the averages should indicate fairly well the relative volume of sales from year to year. Taking the average gross sales per trading post in 1929 as equal to 100 percent, those for 1930 were 68.4; in 1931, 58.8; in 1932, 43.3; and in 1933, 57.7 percent of those reported for 1929. During the latter half of 1933, the trading posts enjoyed increased business resulting from Public Works payrolls.

Had data been available for 1934, further recovery of gross sales would doubtless have been recorded, but the dollar value of gross sales in 1934 would have probably fallen considerably short of the dollar value of gross sales in 1929 because of the lower price levels both of Indian products and merchandise. It is probable, however, that the volume of merchandise sold in 1934 would have more closely approximated that of 1929 than dollar values alone would indicate.

Table 14

Showing total and average gross sales for the years 1929, 1930, 1931, 1932, and 1933.  
Navajo-Hopi Reservation.

GROSS SALES				
Years	Number of Posts	Total	Average	Percent of 1929
1929	20	\$1,207,607.83	\$60,380.39	100.0
1930	26	1,072,960.79	41,267.72	68.4
1931	26	923,660.73	35,525.41	58.8
1932	29	758,743.39	26,163.57	43.3
1933	32	1,115,280.13	34,852.50	57.7

Wholesale Prices

The wholesale prices paid by traders in the Navajo country are presented herein in two forms, undelivered and delivered at the trading posts. Undelivered prices are the prices paid by traders at the wholesale houses, while delivered wholesale prices are the undelivered wholesale prices plus cost of trucking, or transportation, from the wholesale houses to the trading posts.

In both cases, the wholesale prices are averages of all qualities of each type of merchandise actually purchased by the traders in the stated period. Considerations of time and expense prevented our attempting to gather data for a quality-price analysis. Needless to say, considerable variation in the qualities of different types or brands of a given item of merchandise was observed on the shelves of the traders. Exceptions were coffee and sugar. Practically all of the coffee sold to the Indians was Arbuckles Ariosa, roasted, in one-pound packages, and the sugar was granulated.

Undelivered Wholesale Prices. Undelivered wholesale prices of sugar paid by traders within a given period of time should be rather uniform from trading post to trading post. It appears, however, that such is not the case. A comparison of the fluctuations of New York wholesale prices of sugar and wholesale prices paid by traders to wholesalers serving the Navajo country is presented in Table 15. According to this table, the fluctuations of wholesale prices paid by traders at wholesale houses in the Navajo country were 1.6 times as great as fluctuations in the New York quotations in the first half of 1933; 4.3 times as great in the second half of 1933; and 2.5 times as great in the first half of 1934.

We are unable to explain fully these apparently wide fluctuations in the undelivered wholesale prices of other articles of merchandise as indicated in the frequency distributions shown in Tables 17 to 28, pp. 27 to 37, inclusive, but they are probably due, in part, to variations in the qualities of the several types of merchandise handled by different traders or by given traders at different times and, in part, to variations in the bargaining strength or weakness of particular traders in their own wholesale markets. For example, it is probable that a trader in financial straits, buying in small quantities, or unable to pay cash might not be able to bargain as closely in his wholesale market as a trader in strong financial position and, therefore, able to buy in large volume and secure not only the lowest available wholesale prices but also the usual discounts for cash. While wholesale prices are probably of less significance in determining retail prices than the price policy of the trader and the volume of business that he obtains, they nevertheless have an important bearing upon the welfare of both the traders and the Navajo Indians as consumers.

Frequency Distributions of Undelivered Wholesale Costs. In Table 16, p. 26, are presented the underweighted average undelivered wholesale costs of twelve items of merchandise for three six-months periods beginning January 1, 1933 and ending June 30, 1934, while in Tables 17 to 28, pp. 27 to 37, inclusive, are presented frequency distributions of unweighted average undelivered wholesale costs of these items of merchandise for the same periods of time.

Table 15

Showing fluctuations in average wholesale prices of granulated sugar per pound in New York\* and undelivered wholesale prices paid to wholesalers by traders in the Navajo country, three periods, the First half of 1933, the second half of 1933, and the first half of 1934. Navajo-Hopi Reservation.

SUGAR, GRANULATED, CENTS PER POUND

1st Half 1933		2nd Half 1933		1st Half 1934	
New York Prices	Traders' Undelivered Wholesale Prices**	New York Prices	Traders' Undelivered Wholesale Prices**	New York Prices	Traders' Undelivered Wholesale Prices**
High	4.5	6.0	4.6	6.6	4.5
Low	3.8	4.9	4.3	5.3	4.1
Range	.7	1.1	.3	1.3	.4
Percent Fluctuations	100%	157%	100%	432%	100%
* Unweighted					

\* New York quotations compiled from Bureau of Labor Statistics Wholesale Price Bulletins by the Division of Statistical and Historical Research, Bureau of Agricultural Economics, U. S. Department of Agriculture.

Table 16

Showing average undelivered wholesale costs of 12 items of merchandise listed in the three 6-months periods, January 1 to June 30, 1933; July 1 to December 31, 1933; and January 1 to June 30, 1934; and the number of trading posts included in the averages.  
Navajo-Hopi Reservation

Item	Unit	Average Undelivered Wholesale Costs*			No. of trading posts included in Averages		
		1st Half 1933	2nd Half 1933	1st Half 1934	1st Half 1933	2nd Half 1933	1st Half 1934
Flour	100 lbs. gross	\$2.21	\$3.30	\$3.43	41	47	47
Sugar	100 lbs.	5.37	5.81	5.50	40	47	47
Coffee	100 lbs.	17.43	17.25	17.49	44	47	46
Canned tomatoes	Cases - 24 - 2 1/2 cans	2.65	2.94	3.14	41	43	46
Canned milk	Case - 48 No. 1's	2.89	3.10	3.14	37	46	45
Overalls	Dozen	9.04	11.35	11.47	38	46	46
Work shoes	Pair	1.58	1.88	1.94	25	39	43
Hats	Dozen	46.39	49.77	54.14	29	39	41
Women's dress goods	Yard	.09	.11	.11	40	44	44
Velveteen	Yard	.44	.51	.54	36	45	45
Shawls & Robes	Each	9.04	9.99	10.51	29	44	47
Thread	Dozen spools	.46	.47	.47	36	43	45

\*Unweighted

Table 17

Flour

Showing frequency distributions of average undelivered wholesale costs of flour per 100 lbs. (96 lb. net) 1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal undelivered wholesale costs for each of the three periods.  
Navajo-Hopi Reservation

<u>Undelivered Wholesale Costs*</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$1.50 or less	0	0	0
1.51 to \$1.75	8	0	0
1.76 to 2.00	5	0	0
2.01 to 2.25	6	1	0
2.26 to 2.50	13	3	0
2.51 to 2.75	7	2	0
2.76 to 3.00	1	7	3
3.01 to 3.25	1	9	12
3.26 to 3.50	0	4	12
3.51 to 3.75	0	13	14
3.76 to 4.00	0	7	4
4.01 to 4.25	0	1	2
Number of trading posts in distributions	41	47	47
Arithmetic average of undelivered wholesale costs	\$2.21	\$3.30	\$3.43
Median wholesale cost	2.36	3.38	3.46
Modal wholesale cost	2.39	3.67	3.44

\*Unweighted

Table 18

Sugar

Showing frequency distributions of average undelivered wholesale costs of sugar per 100 lbs. 1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal undelivered wholesale costs for each of the three periods.  
Navajo-Hopi Reservation

Undelivered Wholesale Costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$4.50 or less	0	0	0
4.51 to \$4.75	0	0	0
4.75 to 5.00	2	0	0
5.01 to 5.25	9	0	7
5.26 to 5.50	18	6	19
5.51 to 5.75	9	19	11
5.76 to 6.00	2	13	9
6.01 to 6.25	0	4	1
6.26 to 6.50	0	4	0
6.51 to 6.75	0	1	0
Number of trading posts in distributions	40	47	47
Arithmetic average of undelivered wholesale costs	\$5.37	\$5.81	\$5.50
Median wholesale cost	5.33	5.73	5.47
Modal wholesale cost	5.38	5.71	5.41

\*Unweighted

Table 19

Coffee

Showing frequency distributions of average undelivered wholesale costs of coffee per 100 lbs.

1st half of 1933, 2nd half of 1933, and 1st half of 1934,

and the number of trading posts in the distributions,

and the arithmetic average, the median, and the modal undelivered wholesale costs for each of the three periods.

Navajo-Hopi Reservation

Undelivered Wholesale Costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$14.50 or less	0	0	0
14.51 to \$15.00	0	1	0
15.01 to 15.50	1	1	0
15.51 to 16.00	0	1	1
16.01 to 16.50	5	12	3
16.51 to 17.00	14	11	8
17.01 to 17.50	4	5	16
17.51 to 18.00	5	3	12
18.01 to 18.50	6	6	6
18.51 to 19.00	6	6	0
19.01 to 19.50	3	0	0
19.51 to 20.00	0	0	0
20.01 to 20.50	0	0	0
20.51 to 21.00	0	1	0
21.01 to 21.50	0	0	0
21.51 to 22.00	0	0	0
22.01 to 22.50	0	0	1
Number of trading posts in distributions	44	47	46
Arithmetic average of undelivered wholesale costs	\$17.43	\$17.25	\$17.49
Median wholesale cost	17.14	16.84	17.33
Modal wholesale cost	16.73	16.76	17.31

\*Unweighted

Table 20

Canned Tomatoes

Showing frequency distributions of average undelivered wholesale costs of canned tomatoes per case of 24 No. 2 1/2 cans, 1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal undelivered wholesale costs for each of the three periods  
Navajo-Hopi Reservation

Wholesale Costs*	Frequencies		
	1st Half	2nd Half	1st Half
	1933	1933	1934
\$2.00 or less	0	0	0
2.01 to \$2.25	1	0	0
2.26 to 2.50	10	3	0
2.51 to 2.75	24	7	0
2.76 to 3.00	5	16	9
3.01 to 3.25	0	11	28
3.26 to 3.50	1	6	8
3.51 to 3.75	0	0	1
Number of trading posts in distributions	41	43	46
Arithmetic average of undelivered wholesale costs	\$2.65	\$2.94	\$3.14
Median Wholesale cost	2.63	2.94	3.12
Modal Wholesale cost	2.59	2.91	3.13

\*Unweighted

Table 21

Canned Milk

Showing frequency distributions of average undelivered wholesale costs of canned milk per case of 48 cans, 1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal undelivered wholesale costs for each of the three periods.

Navajo-Hopi Reservation

Undelivered Wholesale Costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$2.25 or less	0	0	0
2.26 to \$2.50	1	0	0
2.51 to 2.75	9	1	0
2.76 to 3.00	18	8	14
3.01 to 3.25	7	28	21
3.26 to 3.50	0	9	9
3.51 to 3.75	1	0	0
3.76 to 4.00	1	0	0
4.01 to 4.25	0	0	0
4.26 to 4.50	0	0	0
4.51 to 4.75	0	0	1
Number of trading posts in distributions	37	46	45
Arithmetic average of undelivered wholesale costs	\$2.89	\$3.10	\$3.14
Median wholesale cost	2.87	3.05	3.05
Modal wholesale cost	2.87	3.14	3.11

\*Unweighted

Table 22

Overalls

Showing frequency distributions of average undelivered wholesale costs of overalls per dozen 1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal undelivered wholesale costs for each of the three periods.

Navajo-Hopi Reservation

Undelivered Wholesale costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$6.50 or less	0	0	0
6.51 to \$7.50	6	2	1
7.51 to 8.50	10	2	0
8.51 to 9.50	10	2	2
9.51 to 10.50	4	8	6
10.51 to 11.50	6	9	17
11.51 to 12.50	0	14	14
12.51 to 13.50	2	5	2
13.51 to 14.50	0	1	1
14.51 to 15.50	0	2	1
15.51 to 16.50	0	0	0
16.51 to 17.50	0	1	1
17.51 to 18.50	0	0	1
Number of trading posts in distributions	38	46	46
Arithmetic average of undelivered wholesale costs	\$9.04	\$11.35	\$11.47
Median wholesale cost	8.78	11.47	11.38
Modal wholesale cost	8.70	11.72	11.06

\*Unweighted

Table 23

Work Shoes

Showing frequency distributions of average undelivered wholesale costs of work shoes per pair 1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal undelivered wholesale costs for each of the three periods.

Navajo-Hopi Reservation

Wholesale Costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$ .75 or less	0	0	0
.76 to \$1.00	1	1	1
1.01 to 1.25	2	0	3
1.26 to 1.50	6	5	1
1.51 to 1.75	11	7	9
1.76 to 2.00	4	19	12
2.01 to 2.25	1	2	8
2.26 to 2.50	0	1	5
2.51 to 2.75	0	2	4
2.76 to 3.00	0	1	0
3.01 to 3.25	0	1	0
Number of trading posts in distributions	25	39	43
Arithmetic average of undelivered wholesale costs	\$1.58	\$1.88	\$1.94
Median wholesale cost	1.55	1.84	1.90
Modal wholesale cost	1.60	1.81	1.89

\*Unweighted

TABLE 24

Hats

Showing frequency distributions of average undelivered wholesale costs of hats per dozen 1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal undelivered wholesale costs for each of the three periods.

Navajo-Hopi Reservation

<u>Undelivered Wholesale Costs*</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$15.00 or less	0	0	0
15.01 to \$20.00	1	0	0
20.01 to 25.00	0	0	0
25.01 to 30.00	1	0	0
30.01 to 35.00	1	2	2
35.01 to 40.00	1	3	3
40.01 to 45.00	5	5	2
45.01 to 50.00	10	8	4
50.01 to 55.00	7	11	13
55.01 to 60.00	2	7	7
60.01 to 65.00	0	2	6
65.01 to 70.00	1	0	1
70.01 to 75.00	0	1	0
75.01 to 80.00	0	0	2
80.01 to 85.00	0	0	1
Number of trading posts in distributions	29	39	41
Arithmetic average of undelivered wholesale costs	\$46.39	\$49.77	\$54.14
Median wholesale cost	48.00	51.00	54.00
Modal wholesale cost	47.93	52.34	53.19

\*Unweighted

Table 25

Women's Dress Goods

Showing frequency distributions of average undelivered wholesale costs of women's dress goods per yard 1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal undelivered wholesale costs for each of the three periods.

Navajo-Hopi Reservation

<u>Undelivered Wholesale costs*</u>	<u>Frequencies</u>		
	1st Half 1933	2nd Half 1933	1st Half 1934
4	1	0	0
7	2	1	0
8	14	2	1
9	11	7	1
10	6	8	4
11	2	17	15
12	2	6	17
13	0	1	3
14	0	1	2
15	0	0	1
18	1	1	0
20	1	0	0

Number of trading posts in distributions	40	44	44
Arithmetic average of undelivered wholesale costs	\$ .09	\$ .11	\$ .11
Median wholesale cost	.09	.11	.12
Modal wholesale cost	.08 .09	.10 .11	.11 .12

\*Unweighted

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Table 26  
Velveteen

Showing frequency distributions of average undelivered wholesale costs of velveteen per yard 1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal undelivered wholesale costs for each of the three periods.

Navajo-Hopi Reservation

Undelivered Wholesale Costs*	Frequencies		
	: 1st Half : 2nd Half		1st Half
	1933	1933	1934
\$ .25 or less	0	0	0
.26 to \$ .30	1	0	0
.31 to .35	1	0	0
.36 to .40	1	2	2
.41 to .45	17	3	1
.46 to .50	14	15	2
.51 to .55	1	20	23
.56 to .60	1	4	14
.61 to .65	0	1	3
Number of trading posts in distributions	36	45	45
Arithmetic average of undelivered wholesale costs	\$ .44	\$ .51	\$ .54
Median wholesale cost	.45	.52	.53
Modal wholesale cost	.46	.51	.54

\*Unweighted

Table 27  
Shawls and Robes

Showing frequency distributions of average undelivered wholesale costs of shawls and robes each 1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal undelivered wholesale costs for each of the three periods.

Navajo-Hopi Reservation

Undelivered Wholesale Costs*	Frequencies		
	: 1st Half : 2nd Half		1st Half
	1933	1933	1934
\$5.00 or less	0	0	0
5.01 to \$6.00	2	0	0
6.01 to 7.00	2	0	0
7.01 to 8.00	1	2	0
8.01 to 9.00	2	1	2
9.01 to 10.00	20	18	4
10.01 to 11.00	2	20	32
11.01 to 12.00	0	3	8
12.01 to 13.00	0	0	1
Number of trading posts in distributions	29	44	47
Arithmetic average of undelivered wholesale costs	\$ 9.04	\$ 9.99	\$ 10.51
Median wholesale cost	9.50	10.08	10.50
Modal wholesale cost	9.50	10.15	10.68

\*Unweighted

Table 28

Thread

Showing frequency distributions of average undelivered wholesale costs of thread per dozen 1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal undelivered wholesale costs for each of the three periods.

Navajo-Hopi Reservation

Undelivered Wholesale Costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$ .28 or less	0	0	0
.29 to \$ .32	1	1	0
.33 to .36	0	0	1
.37 to .40	1	0	2
.41 to .44	3	6	5
.45 to .48	25	25	23
.49 to .52	5	10	12
.53 to .56	0	0	1
Number of trading posts in distributions	35	42	44
Arithmetic average of undelivered wholesale costs	\$ .46	\$ .46	\$ .47
Median wholesale cost	.46	.46	.46
Modal wholesale cost	.47	.47	.47

\*Unweighted

Delivered Wholesale Costs, Navajo-Hopi Trading Posts. As a basis for determining the markups on a selected list of items of merchandise, the truckage or transportation costs were added to the undelivered wholesale costs paid by traders at the wholesale houses. Table 29, p. 39, shows the unweighted average delivered wholesale costs of 12 items of merchandise for three successive periods and the number of trading posts included in the averages. These figures indicate the tendency of costs to rise from the first to the last period.

Table 30, p. 39, shows the unweighted average delivered wholesale costs of flour for each of the three periods, by jurisdictions. It will be noted that the costs in the different jurisdictions vary rather widely. This may be accounted for in part by variations in the wholesale costs paid, in part, by variations in trucking costs, and, in part, by variations in the qualities of flour handled by the different traders, or by given traders.

Table 31, p. 40, shows the unweighted percentage markups on delivered wholesale costs for the same trading posts and jurisdictions. It will be observed that there is apparently no consistent relation between delivered wholesale costs and markups. For example, in the Northern Navajo, where the delivered wholesale costs

were uniformly lowest, the markups were highest. In the Southern Navajo, where the delivered wholesale costs were next to lowest, the markups averaged low. In the Western Navajo, where the delivered wholesale costs were uniformly highest, the markups were about average. In the Eastern Navajo, where the delivered wholesale costs were rather high, the markups were average to a little lower than average. In the Hopi and Leupp jurisdictions combined, where the delivered wholesale costs averaged high, the markups were relatively low. Generally speaking, however, the markups on the delivered wholesale costs of flour throughout the Navajo country were low compared with the markups on most other items of merchandise handled by the traders.

The other eleven items of merchandise included in Table 29, p. 39, are not distributed by jurisdictions owing to the multiplicity of tables that would be required.

Frequency Distributions of Average Delivered Wholesale Costs of Merchandise. Tables 32 to 43, pp. 40 to 48, inclusive, show frequency distributions of average wholesale costs of the items of merchandise indicated per wholesale unit delivered at the trading posts on the Navajo-Hopi reservation. These tables seem to indicate a wider disparity of delivered wholesale costs than can be accounted for by variations in quality or in freight rates, or by general changes in the wholesale cost level over the periods indicated in the tables.

At the bottom of each of these tables are indicated the number of trading posts included in the distributions, and the arithmetic averages, the median, and the modes of delivered wholesale costs. The arithmetic average will be readily understood. The median is simply the middle, or approximately the middle, cost in our arrays of costs, while the mode is the cost around which the greatest number of purchases tend to cluster. The advantage of the mode is that it is not influenced by extremely high or low costs and in many cases is a more reliable measure than the arithmetic average or the median. In some cases, however, wherein there was no strong tendency for the costs to cluster around a central figure, the mode is only an estimate. Everything considered, it may be more practicable to depend upon the arithmetic average throughout this study. The frequency distributions serve to emphasize variations in delivered wholesale costs on the reservation. In the case of flour, for example, in the first half of 1933 the average delivered wholesale costs varied from a low of \$1.85 to a high of \$2.98; in the second half of 1933 the costs varied from a low of \$2.60 to a high of \$4.92; and in the 1st half of 1934 the costs varied from a low of \$3.14 to a high of \$5.34.

It should be understood that throughout this report wholesale and retail prices and markups are unweighted.

Table 29

Showing average delivered wholesale costs of 12 items of merchandise listed in the three 6-months periods, January 1 to June 30, 1933; July 1 to December 31, 1933; and January 1 to June 30, 1934; and the number of trading posts included in the averages.

Navajo-Hopi Country

Item	Unit	Average Delivered wholesale costs*			No. of trading posts included in averages		
		1st Half	2nd Half	1st Half	1st Half	2nd Half	1st Half
		1933	1933	1934	1933	1933	1934
Flour	100 lbs. gross	\$2.72	\$3.72	\$3.84	41	47	47
Sugar	100 lbs.	5.92	6.34	6.01	40	47	47
Coffee	100 lbs.	18.10	17.90	18.07	44	47	47
Canned tomatoes	Case - 24						
	2-1/2 cans	2.96	3.26	3.42	34	38	38
Canned milk	Case - 48 No. 1's	3.16	3.38	3.38	34	46	45
Overalls	Dozen	9.26	11.57	11.70	38	46	47
Work shoes	Pair	1.65	1.94	2.06	25	39	43
Hats	Dozen	46.43	50.43	54.33	27	39	42
Women's dress goods	Yard	.09	.11	.12	39	44	45
Velveteen	Yard	.45	.51	.54	35	46	46
Shawls & Robes	Each	9.29	10.02	10.53	29	43	47
Thread	Dozen spools	.46	.47	.47	35	42	44

\*Unweighted

Table 30

Flour

Showing average delivered wholesale costs of flour, per 100 lbs. (96 lbs. net) for the three periods January 1 to June 30, 1933; July 1 to December 31, 1933; and January 1 to June 30, 1934, by jurisdictions.

Navajo-Hopi Country

Jurisdictions	Delivered Wholesale Costs*			No. of Trading Posts included in Average		
	1st Half	2nd Half	1st Half	1st Half	2nd Half	1st Half
	1933	1933	1934	1933	1933	1934
Northern Navajo	\$2.22	\$3.14	\$3.45	10	10	10
Southern Navajo	2.69	3.68	3.86	17	19	19
Western Navajo	3.38	4.23	4.31	7	8	8
Eastern Navajo	2.90	3.75	3.76	3	5	5
Hopi and Leupp	2.78	4.00	3.86	4	5	5

Table 31

Flour

Showing average percentage markups on flour for the three periods studied, by jurisdictions, and the number of trading posts included in the averages for each jurisdiction.

Navajo-Hopi Country

Jurisdictions	Average Percentage Markups*			No. of Trading Posts included in Average		
	1st Half	2nd Half	1st Half	1st Half	2nd Half	1st Half
	1933	1933	1934	1933	1933	1934
Northern Navajo	54	29	22	10	10	10
Southern Navajo	39	18	17	17	19	19
Western Navajo	49	23	20	7	8	8
Eastern Navajo	29	22	22	3	5	5
Hopi and Leupp	30	18	20	4	5	5

\*Unweighted

Table 32

Flour

Showing frequency distributions of average wholesale costs of flour per 100 lbs. (96 lbs. net) delivered at the trading posts (cost plus trucking), Navajo-Hopi Reservation

1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal wholesale costs for each of the three periods.

Delivered Wholesale Costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$1.75 or less	0	0	0
1.76 to 2.00	5	0	0
2.01 to 2.25	3	0	0
2.26 to 2.50	9	0	0
2.51 to 2.75	5	4	0
2.76 to 3.00	6	5	0
3.01 to 3.25	9	4	4
3.26 to 3.50	1	5	9
3.51 to 3.75	2	5	9
3.76 to 4.00	0	7	11
4.01 to 4.25	0	8	8
4.26 to 4.50	1	2	2
4.51 to 4.75	0	5	2
4.76 to 5.00	0	2	1
5.01 to 5.25	0	0	0
5.26 to 5.50	0	0	1
Number of trading posts in distributions	41	47	47
Arithmetic average of delivered wholesale costs	\$2.72	\$3.72	\$3.84
Median wholesale cost	2.71	3.68	3.84
Modal wholesale cost	2.85	3.97	3.88

\*Unweighted

Table 33

Sugar

Showing frequency distributions of average wholesale costs of sugar per 100 lbs. delivered at the trading posts (cost plus transportation),

Navajo-Hopi Reservation

1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal wholesale costs for each of the three periods.

Delivered Wholesale Costs*	Frequencies		
	1st Half	2nd Half	1st Half
	1933	1933	1934
\$5.00 or less	0	0	0
5.01 to \$5.50	5	1	3
5.51 to 6.00	19	6	21
6.01 to 6.50	13	26	21
6.51 to 7.00	2	11	1
7.01 to 7.50	1	3	1
Number of trading posts in distributions	40	47	47
Arithmetic average of delivered wholesale costs	\$5.92	\$6.34	\$6.01
Median wholesale cost	5.95	6.26	6.00
Modal wholesale cost	5.87	6.33	5.95

\*Unweighted

Table 34

Coffee

Showing frequency distributions of average wholesale costs of coffee per 100 lbs. delivered at the trading posts (cost plus transportation),

Navajo-Hopi Reservation

1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal wholesale costs for each of the three periods.

Delivered Wholesale Costs*	Frequencies		
	1st Half	2nd Half	1st Half
	1933	1933	1934
\$15.00 or less	0	1	1
15.01 to \$16.00	1	0	0
16.01 to 17.00	5	12	5
17.01 to 18.00	19	15	20
18.01 to 19.00	4	7	16
19.01 to 20.00	14	10	3
20.01 to 21.00	1	1	1
21.01 to 22.00	0	1	0
22.01 to 23.00	0	0	0
23.01 to 24.00	0	0	1
Number of trading posts in distributions	44	47	47
Arithmetic average of delivered wholesale costs	\$18.10	\$17.90	\$18.07
Median wholesale cost	17.80	17.53	17.87
Modal wholesale cost	17.56	17.38	17.77

\*Unweighted

Table 35  
Canned Tomatoes

Showing frequency distribution of  
average wholesale costs of canned tomatoes per case of 24 No. 2-1/2 cans  
delivered at the trading posts (cost plus transportation),  
Navajo-Hopi Reservation  
1st half of 1933, 2nd half of 1933, and 1st half of 1934,  
and the number of trading posts in the distributions,  
the arithmetic average, the median, and the modal wholesale costs for  
each of the three periods.

Delivered Wholesale Costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$2.25 or less	0	0	0
2.26 to 2.50	1	0	0
2.51 to 2.75	6	3	0
2.76 to 3.00	13	2	0
3.01 to 3.25	11	14	7
3.26 to 3.50	2	14	21
3.51 to 3.75	1	4	8
3.76 to 4.00	0	1	1
4.01 to 4.25	0	0	1
Number of trading posts in distributions	34	38	38
Arithmetic average of delivered wholesale costs	\$2.96	\$3.26	\$3.42
Median wholesale cost	2.91	3.27	3.44
Modal wholesale cost	2.92	3.26	3.39

\*Unweighted

Table 36  
Canned Milk

Showing frequency distributions of  
average wholesale costs of canned milk per case of 48 cans  
delivered at the trading posts (cost plus transportation),  
Navajo-Hopi Reservation  
1st half of 1933, 2nd half of 1933, and 1st half of 1934,  
and the number of trading posts in the distributions,  
the arithmetic average, the median, and the modal wholesale costs for  
each of the three periods.

Delivered Wholesale Costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$2.25 or less	0	0	0
2.26 to 2.50	0	0	0
2.51 to 2.75	2	1	0
2.76 to 3.00	9	0	1
3.01 to 3.25	10	14	12
3.26 to 3.50	11	21	23
3.51 to 3.75	0	6	6
3.76 to 4.00	1	3	3
4.01 to 4.25	1	1	0
Number of trading posts in distributions	34	46	45
Arithmetic average of delivered wholesale costs	\$3.16	\$3.38	\$3.38
Median wholesale cost	3.16	3.40	3.40
Modal wholesale cost	3.05	3.33	3.34

\*Unweighted

Overalls

Showing frequency distributions of  
average wholesale costs of overalls per dozen delivered at the  
trading posts (cost plus transportation),  
Navajo-Hopi Reservation

1st half of 1933, 2nd half of 1933, and 1st half of 1934,  
and the number of trading posts in the distributions,  
the arithmetic average, the median, and the modal wholesale costs for  
each of the three periods

Delivered Wholesale Costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$7.00 or less	0	0	0
7.01 to 8.00	11	3	1
8.01 to 9.00	8	1	1
9.01 to 10.00	9	2	1
10.01 to 11.00	3	10	16
11.01 to 12.00	5	12	17
12.01 to 13.00	2	12	5
13.01 to 14.00	0	2	2
14.01 to 15.00	0	1	1
15.01 to 16.00	0	1	0
16.01 to 17.00	0	1	1
17.01 to 18.00	0	0	0
18.01 to 19.00	0	1	2

Number of trading posts in distributions	38	46	47
Arithmetic average of delivered wholesale costs	\$9.26	\$11.57	\$11.70
Median wholesale cost	8.75	11.55	11.47
Modal wholesale cost	9.00	11.56	11.25

\*Unweighted

Table 38

Work Shoes

Showing frequency distributions of average wholesale costs of work shoes per pair delivered at the trading posts (cost plus transportation),

Navajo-Hopi Reservation

1st half of 1933, 2nd Half of 1933, and 1st half of 1934,  
and the number of trading posts in the distributions,  
the arithmetic average, the median, and the modal wholesale costs for  
each of the three periods

Delivered Wholesale Costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$1.00 or less	0	0	0
1.01 to \$1.25	2	1	1
1.26 to 1.50	5	0	2
1.51 to 1.75	11	11	3
1.76 to 2.00	4	17	14
2.01 to 2.25	3	4	11
2.26 to 2.50	0	2	7
2.51 to 2.75	0	2	3
2.76 to 3.00	0	1	1
3.01 to 3.25	0	1	0
3.26 to 3.50	0	0	1
Number of trading posts in distributions	25	39	43
Arithmetic average of delivered wholesale costs	\$1.65	\$1.94	\$2.06
Median wholesale cost	1.65	1.89	1.95
Modal wholesale cost	1.62	1.85	1.96

\*Unweighted

Table 39

Hats

Showing frequency distributions of average wholesale costs of hats per dozen delivered at the trading posts (cost plus transportation),

Navajo-Hopi Reservation

1st half of 1933, 2nd half of 1933, and 1st half of 1934, and the number of trading posts in the distributions, the arithmetic average, the median, and the modal wholesale costs for each of the three periods.

Delivered Wholesale Costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$15.00 or less	0	0	0
15.01 to \$20.00	1	0	0
20.01 to 25.00	0	0	0
25.01 to 30.00	0	0	0
30.01 to 35.00	2	1	2
35.01 to 40.00	1	4	4
40.01 to 45.00	4	3	1
45.01 to 50.00	9	7	5
50.01 to 55.00	8	13	12
55.01 to 60.00	1	8	8
60.01 to 65.00	0	2	4
65.01 to 70.00	1	0	3
70.01 to 75.00	0	1	0
75.01 to 80.00	0	0	1
80.01 to 85.00	0	0	2

Number of trading posts in distribution	27	39	42
Arithmetic average of delivered wholesale costs	\$46.43	\$50.43	\$54.33
Median wholesale cost	48.06	50.60	54.56
Modal wholesale cost	48.34	52.68	53.11

\*Unweighted

Table 40

Women's Dress Goods

Showing frequency distributions of average wholesale costs of women's dress goods per yard delivered at the trading posts (cost plus transportation),

Navajo-Hopi Reservation

1st half of 1933, 2nd half of 1933, and 1st half of 1934,  
and the number of trading posts in the distributions,  
the arithmetic average, the median, and the modal wholesale costs for  
each of the three periods.

Delivered Wholesale Costs* In Cents per Yard	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
4	1	0	0
7	1	1	0
8	13	1	0
9	9	7	2
10	11	6	2
11	1	17	17
12	2	8	17
13	1	1	3
14	0	1	3
15	0	1	1

Number of trading posts in distribution	39	43	45
Arithmetic average of delivered wholesale costs	\$ .09	\$ .11	\$ .12
Median wholesale cost	.09	.11	.12
Modal wholesale cost	.09	.11	.12

\*Unweighted

Table 41

Velveteen

Showing frequency distributions of  
average wholesale costs of velveteen per yard delivered at  
the trading posts (cost plus transportation),

Navajo-Hopi Reservation

1st half of 1933, 2nd half of 1933, and 1st half of 1934,  
and the number of trading posts in the distributions,  
the arithmetic average, the median, and the modal wholesale costs for  
each of the three periods.

Delivered Wholesale Costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$ .30 or less	0	0	0
.31 to \$ .34	2	0	0
.35 to .38	0	1	0
.39 to .42	8	1	1
.43 to .46	11	3	2
.47 to .50	12	13	3
.51 to .54	1	22	20
.55 to .58	0	5	15
.59 to .62	1	1	2
.63 to .66	0	0	3
Number of trading Posts in distributions	35	46	46
Arithmetic average of delivered wholesale costs	\$ .45	\$ .51	\$ .54
Median wholesale cost	.45	.51	.54
Modal wholesale cost	.44	.52	.54

\*Unweighted

Table 42

## Shawls and Robes

Showing frequency distributions of average wholesale costs of shawls and robes each delivered at the trading posts (cost plus transportation),

Navajo-Hopi Reservation

1st half of 1933, 2nd half of 1933, and 1st half of 1934,  
and the number of trading posts in the distributions,  
the arithmetic average, the median, and the modal wholesale costs  
for each of the three periods.

Delivered Wholesale Costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$5.00 or less	0	0	0
5.01 to \$6.00	1	0	0
6.01 to 7.00	1	0	0
7.01 to 8.00	2	2	0
8.01 to 9.00	1	1	2
9.01 to 10.00	19	15	4
10.01 to 11.00	4	23	31
11.01 to 12.00	1	2	9
12.01 to 13.00	0	0	1
Number of trading posts in distributions.	29	43	47
Arithmetic average of delivered wholesale costs	\$9.29	\$10.02	\$10.53
Median wholesale cost	9.53	10.10	10.53
Modal wholesale cost	9.81	10.14	10.70

\*Unweighted

Table 43

## Thread

Showing frequency distributions of  
average wholesale costs of thread per dozen delivered  
at the trading posts

Navajo-Hopi Reservation

1st half of 1933, 2nd half of 1933, and 1st half of 1934,  
and the number of trading posts in the distributions,  
the arithmetic average, the median, and the modal wholesale costs for  
each of the three periods

Delivered Wholesale Costs*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$.28 or less	0	0	0
.29 to \$.32	1	1	0
.33 to .36	0	0	1
.37 to .40	1	0	2
.41 to .44	3	6	5
.45 to .48	25	25	23
.49 to .52	5	10	12
.53 to .56	0	0	1
Number of trading posts in distributions	35	42	44
Arithmetic average of delivered wholesale costs	\$.46	\$.46	\$.47
Median wholesale cost	.46	.46	.46
Modal wholesale cost	.47	.47	.47

\*Unweighted

### Retail Prices

As indicative of retail prices charged by Navajo trading posts, in Tables 44 to 56, pp. 50 to 59, inclusive, are presented average median and modal prices as determined from price data supplied the writers by the Navajo traders consulted.

In Table 44, pp. 50 to 52, inclusive, are presented the average prices of 12 items of merchandise for the three periods indicated. It should be explained that the odd cents indicated in the figures are the result of averaging. Very few Navajo traders make penny change. The smallest denomination of money in general use, therefore, is the 5-cent piece. It will be observed that the modal prices most nearly reflect customary prices of the different articles sold to the Indians. Sugar is a good example. More often than otherwise, sugar was sold in 5-pound packages at 10 cents a pound, or 50 cents a package. In the case of goods of various qualities, such as hats, overalls, and work shoes, as many modes are presented as the figures indicated.

Frequency Distributions of Average Retail Prices. While wholesale prices on the reservation tend to move in sympathy with price changes in the wholesale markets, retail prices of staple items of merchandise tend to remain rather stationary or keep in line with customary prices of other posts, and ignore minor swings in wholesale prices. Retail prices on the reservation, however, must change in the long run as when wholesale prices tend to rise and eliminate profit margins, or when local competition necessitates changes in retail prices. For example, notwithstanding the variations in delivered wholesale costs of merchandise previously noted, the customary retail price of coffee was 25 cents and of sugar 10 cents per pound throughout the period, January 1, 1933 to June 30, 1934. Other examples may be observed in Table 44, pp. 50 to 52, inclusive.

Variations in the prices of items of merchandise from trading post to trading post are probably explained, in part by variations in the costs of articles sold, in part by variations in trucking costs, and in part by variations in the price policies of the traders. The traders' price or markup policies may or may not be directly associated with their volumes of business, or remoteness of location from wholesale houses or competing trading posts.

The price of flour varied from \$.68 to \$1.50 a sack in the first half of 1933; from \$.75 to \$1.50 in the second half of 1933; and from \$.93 to \$1.50 in the first half of 1934.

The price of sugar varied from \$.07 to \$.13 a pound in the first half of 1933; from \$.07 to \$.13 in the second half of 1933; and from \$.06 to \$.13 in the first half of 1934.

The price of coffee varied from \$.19 to \$.30 a pound in the first half of 1933; from \$.19 to \$.30 in the second half of 1933; and from \$.20 to \$.25 in the first half of 1934.

The price of canned tomatoes varied from \$.16 to \$.25 a can in the first half of 1933; from \$.15 to \$.25 in the second half of 1933; and from \$.14 to \$.25 in the first half of 1934.

The price of canned milk varied from \$.07 to \$.20 a can in the first half of 1933; from \$.08 to \$.20 in the second half of 1933; and from \$.08 to \$.20 in the first half of 1934.

The price of overalls varied from \$.86 to \$2.00 a pair in the first half of 1933; from \$.90 to \$2.78 in the second half of 1933; and from \$.97 to \$2.17 in the first half of 1934.

The price of work shoes varied from \$2.00 to \$5.50 a pair in the first half of 1933; from \$2.00 to \$4.95 in the second half of 1933; and from \$2.00 to \$4.95 in the first half of 1934.

The price of hats varied from \$3.25 to \$9.50 each in the first half of 1933; from \$4.00 to \$10.00 in the second half of 1933; and from \$4.71 to \$12.00 in the first half of 1934.

The price of women's dress goods varied from \$.10 to \$.25 a yard in the first half of 1933; from \$.10 to \$.26 in the second half of 1933; and from \$.15 to \$.27 in the first half of 1934.

The price of velveteen varied from \$.60 to \$1.00 a yard in the first half of 1933; from \$.60 to \$1.00 in the second half of 1933; and from \$.70 to \$1.00 in the first half of 1934.

The price of shawls and robes varied from \$8.00 to \$17.00 each in the first half of 1933; from \$11.50 to \$17.00 in the second half of 1933; and from \$12.00 to \$17.50 in the first half of 1934.

The price of thread varied from \$.05 to \$.10 a spool in the first half of 1933; from \$.05 to \$.10 in the second half of 1933; and from \$.05 to \$.10 in the first half of 1934.

The reader must keep in mind that all retail prices indicated herein are averages of the prices of all qualities of each item of merchandise sold.

Table 44

Showing average, median, and modal retail prices  
of 12 items of merchandise handled by traders on the  
Navajo-Hopi Reservation

Item	1st Half 1933	2nd Half 1933	1st Half 1934
<u>Flour, 24 lb. sacks</u>			
Average	\$ .96	\$1.11	\$1.13
Median	.91	1.10	1.15
Mode	.90	1.11	1.16
<u>Sugar, per pound</u>			
Average	.09	.10	.10
Median	.10	.10	.10
Mode	.10	.10	.10
<u>Coffee, per pound</u>			
Average	.25	.25	.25
Median	.25	.25	.25
Mode	.25	.25	.25

Table 44 (Cont'd.)

Showing average, median, and modal retail prices  
of 12 items of merchandise handled by traders on the  
Navajo-Hopi Reservation

Item	1st Half 1933	2nd Half 1933	1st Half 1934
<u>Canned tomatoes, 2-1/2's cans</u>			
Average	\$ .22	\$ .23	\$ .22
Median	.25	.25	.25
Modes	.20	.20	.20
	.25	.25	.25
<u>Canned milk, 48's can</u>			
Average	.12	.12	.12
Median	.10	.10	.10
Modes	.10	.10	.10
	.15	.15	.15
<u>Overalls, per pair</u>			
Average	1.36	1.47	1.52
Median	1.25	1.42	1.50
Modes	1.25	1.25	1.25
	1.50	1.50	1.50
	1.75	1.75	1.75
<u>Work shoes, per pair</u>			
Average	2.93	3.11	3.32
Median	2.75	3.00	3.32
Modes	2.50	2.75	3.00
	2.75	3.00	3.50
	3.00	3.50	4.00
			4.50
<u>Hats, each</u>			
Average	6.32	6.74	7.28
Median	6.33	6.50	6.75
Modes	6.00	6.00	6.00
	6.50	6.50	6.50
	7.50	7.50	7.50
<u>Women's dress goods per yard</u>			
Average	.18	.19	.20
Median	.17	.20	.20
Mode	.15	.20	.20
<u>Velveteen, per yard</u>			
Average	.87	.88	.91
Median	.80	.83	.94
Modes	.80	.80	.80
	1.00	1.00	1.00

Table 44 (Cont'd.)

Showing average, median, and modal retail prices  
of 12 items of merchandise handled by traders on the  
Navajo-Hopi Reservation

Item	1st Half	2nd Half	1st Half
	1933	1933	1934
<u>Shawls and Robes, each</u>			
Average	\$14.05	\$14.51	\$14.99
Median	14.00	14.50	15.00
Mode	13.88	14.45	15.17
<u>Thread, per spool</u>			
Average	.09	.09	.09
Median	.10	.10	.10
Mode	.10	.10	.10

Table 45

Flour

Showing distributions of average retail prices of flour, per 24 lbs. bag,  
by 6-months periods beginning January 1, 1933 and ending June 30, 1934;  
also the number of trading posts included in the distributions,  
and the arithmetic, median, and modal averages of retail prices,  
Navajo-Hopi Reservation

Average Retail Prices*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$ .50 or less	0	0	0
.51 to \$.60	0	0	0
.61 to .70	1	0	0
.71 to .80	10	2	0
.81 to .90	9	2	0
.91 to 1.00	10	9	9
1.01 to 1.10	4	11	11
1.11 to 1.20	1	10	15
1.21 to 1.30	4	11	11
1.31 to 1.40	1	1	0
1.41 to 1.50	1	1	1
Number of trading posts in distributions	41	47	47
Arithmetic average of retail prices	\$ .96	\$1.11	\$1.13
Median retail price	.91	1.10	1.15
Modal retail price	.90	1.11	1.16

\*Unweighted

Table 46

Sugar

Showing distributions of average retail prices of sugar, per pound, by 6-months periods beginning January 1, 1933 and ending June 30, 1934; also the number of trading posts included in the distributions, and the arithmetic, median, and modal averages of retail prices, Navajo-Hopi Reservation

Average Retail Prices*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$ .05 or less	0	0	0
.051 to \$ .06	0	0	1
.061 to .07	1	1	0
.071 to .08	11	10	11
.081 to .09	6	6	5
.091 to .10	20	26	26
.101 to .11	1	1	0
.111 to .12	1	1	2
.121 to .13	1	2	2
Number of trading posts in distributions	41	47	47
Arithmetic average of retail prices	\$ .09	\$ .10	\$ .10
Median retail price	.10	.10	.10
Modal retail price	.10	.10	.10

\*Unweighted

Table 47

Coffee

Showing distributions of average retail prices of coffee, per pound, by 6-months periods beginning January 1, 1933 and ending June 30, 1934; also the number of trading posts included in the distributions, and the arithmetic, median, and modal averages of retail prices, Navajo-Hopi Reservation

Average Retail Prices*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$ .17 or less	0	0	0
.18 to \$ .22	2	3	3
.23 to .27	41	43	43
.28 to .32	1	1	0
Number of trading posts in distributions	44	47	46
Arithmetic average of retail prices	\$ .25	\$ .25	\$ .25
Median retail price	.25	.25	.25
Modal retail price	.25	.25	.25

\*Unweighted

Table 48  
Canned Tomatoes

Showing distributions of average retail prices of canned tomatoes, No. 2-1/2, per can, by 6-months periods beginning January 1, 1933 and ending June 30, 1934;

also the number of trading posts included in the distributions, and the arithmetic, median, and modal averages of retail prices.

Navajo-Hopi Reservation

Average Retail Prices*	Frequencies		
	1st Half	2nd Half	1st Half
	1933	1933	1934
\$ .12 or less	0	0	0
.13 to \$ .17	1	1	1
.18 to .22	18	19	21
.23 to .27	19	22	23
Number of trading posts in distributions	38	42	45
Arithmetic average of retail prices	\$ .22	\$ .23	\$ .22
Median retail price	.25	.25	.25
Modal retail prices	.20	.20	.20
	.25	.25	.25

\*Unweighted

Table 49  
Canned Milk

Showing distributions of average retail prices of canned milk, 48's, per can, by 6-month periods beginning January 1, 1933 and ending June 30, 1934;

also the number of trading posts included in the distributions, and the arithmetic, median, and modal averages of retail prices,

Navajo-Hopi Reservation

Average Retail Prices*	Frequencies		
	1st Half	2nd Half	1st Half
	1933	1933	1934
Cents			
7	1	0	0
8	1	1	1
9	1	2	2
10	21	23	23
15	15	19	19
20	2	1	1
Number of trading posts in distributions	41	46	46
Arithmetic average of retail prices	\$ .12	\$ .12	\$ .12
Median retail price	.10	.10	.10
Modal retail prices	.10	.10	.10
	.15	.15	.15

\*Unweighted

Table 50

Overalls

Showing distributions of average retail prices of overalls, per pair, by 6-months periods beginning January 1, 1933 and ending June 30, 1934; also the number of trading posts included in the distributions, and the arithmetic, median, and modal averages of retail prices.

Navajo-Hopi Reservation

<u>Average Retail Prices*</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$ .75 or less	0	0	0
.76 to \$1.00	7	4	1
1.01 to 1.25	17	8	5
1.26 to 1.50	6	21	26
1.51 to 1.75	8	12	11
1.76 to 2.00	2	1	2
2.01 to 2.25	0	0	1
2.26 to 2.50	0	0	0
2.51 to 2.75	0	0	0
2.76 to 3.00	0	1	0
Number of trading posts in distributions	40	47	46
Arithmetic average of retail prices	\$1.36	\$1.47	\$1.52
Median retail price	1.25	1.42	1.50
Modal retail prices	1.25 1.50 1.75	1.25 1.50 1.75	1.25 1.50 1.75

\*Unweighted

Table 51

Work Shoes

Showing distributions of average retail prices of work shoes, per pair, by 6-months periods beginning January 1, 1933 and ending June 30, 1934; also the number of trading posts included in the distributions, and the arithmetic, median, and modal averages of retail prices, Navajo-Hopi Reservation

Average Retail Prices*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$1.75 or less	0	0	0
1.76 to \$2.00	1	1	1
2.01 to 2.25	3	0	0
2.26 to 2.50	6	4	1
2.51 to 2.75	6	10	7
2.76 to 3.00	4	8	8
3.01 to 3.25	3	5	3
3.26 to 3.50	2	5	13
3.51 to 3.75	0	2	3
3.76 to 4.00	1	2	4
4.01 to 4.25	0	0	0
4.26 to 4.50	1	1	3
4.51 to 4.75	0	1	0
4.76 to 5.00	0	1	1
5.01 to 5.25	0	0	0
5.26 to 5.50	1	0	0
Number of trading posts in distributions	28	40	44
Arithmetic average of retail prices	\$2.93	\$3.11	\$3.32
Median retail price	2.75	3.00	3.32
Modal retail prices	2.50 2.75 3.00	2.75 3.00 3.50	3.00 3.50 4.00
			4.50

\*Unweighted

Table 52

## Hats

Showing distributions of average retail prices of hats, each, by 6-months periods beginning January 1, 1933 and ending June 30, 1934; also the number of trading posts included in the distributions and the arithmetic, median, and modal averages of retail prices, Navajo-Hopi Reservation

Average Retail Prices*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$3.00 or less	0	0	0
3.01 to \$4.00	2	1	0
4.01 to 5.00	3	5	3
5.01 to 6.00	8	6	6
6.01 to 7.00	8	13	17
7.01 to 8.00	7	10	6
8.01 to 9.00	0	3	4
9.01 to 10.00	1	3	5
10.01 to 11.00	0	0	1
11.01 to 12.00	0	0	1
Number of trading posts in distributions	29	41	43
Arithmetic average of retail prices	\$3.32	\$6.74	\$7.28
Median retail price	6.33	6.50	6.75
Modal retail prices	6.00 6.50 7.50	6.00 6.50 7.50	6.00 6.50 7.50

\*Unweighted

Table 53  
Women's Dress Goods

Showing distributions of average retail prices of women's dress goods, per yard, by 6-months periods beginning January 1, 1933 and ending June 30, 1934; also the number of trading posts included in the distributions, and the arithmetic, median, and modal averages of retail prices, Navajo-Hopi Reservation

Average Retail Prices*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$ .05 or less	0	0	0
.06 to \$.10	1	2	0
.11 to .15	18	9	10
.16 to .20	11	18	19
.21 to .25	11	15	14
.26 to .30	0	1	2

Number of trading posts in distributions	41	45	45
Arithmetic average of retail prices	\$ .18	\$ .19	\$ .20
Median retail price	.17	.20	.20
Modal retail price	.15	.20	.20

\*Unweighted

Table 54  
Velveteen

Showing distributions of average retail prices of velveteen, per yard, by 6-months periods beginning January 1, 1933 and ending June 30, 1934; also the number of trading posts included in the distributions, and the arithmetic, median, and modal averages of retail prices, Navajo-Hopi Reservation

Average Retail Prices*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$ .55 or less	0	0	0
.56 to \$.65	1	1	0
.66 to .75	5	4	2
.76 to .85	14	19	15
.86 to .95	1	3	7
.96 to 1.05	15	19	22

Number of trading posts in distributions	36	46	46
Arithmetic average of retail prices	\$ .87	\$ .88	\$ .91
Median retail price	.80	.83	.94
Modal retail price	.80	.80	.80

\*Unweighted

Table 55  
Shawls and Robes

Showing distributions of average retail prices of shawls and robes, each, by 6-months periods beginning January 1, 1933 and ending June 30, 1934; also the number of trading posts included in the distributions, and the arithmetic, median, and modal averages of retail prices,

Navajo-Hopi Reservation

Average Retail Prices*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
\$7.00 or less	0	0	0
7.01 to 8.00	1	0	0
8.01 to 9.00	1	0	0
9.01 to 10.00	0	0	0
10.01 to 11.00	1	0	0
11.01 to 12.00	2	3	1
12.01 to 13.00	2	4	2
13.01 to 14.00	10	10	9
14.01 to 15.00	6	16	16
15.01 to 16.00	8	8	15
16.01 to 17.00	2	4	3
17.01 to 18.00	0	0	1

Number of trading posts in distributions	33	45	47
Arithmetic average of retail prices	\$14.05	\$14.51	\$14.99
Median retail price	14.00	14.50	15.00
Modal retail price	13.88	14.45	15.17

\*Unweighted

Table 56  
Thread

Showing distributions of average retail prices of thread, per spool, by 6-months periods beginning January 1, 1933 and ending June 30, 1934; also the number of trading posts included in the distributions, and the arithmetic, median, and modal averages of retail prices,

Navajo-Hopi Reservation

Average Retail Prices*	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
Cents per spool			
5	6	8	8
8	0	1	1
10	32	34	36
Number of trading posts in distributions	38	43	45
Arithmetic average of retail prices	\$.09	\$.09	\$.09
Median retail price	.10	.10	.10
Modal retail price	.10	.10	.10

\*Unweighted

### Markups

The term "markup" as employed in this section of the report is the gross profit per unit of retail sale expressed as a percentage of its delivered wholesale cost. The purpose in basing the markups on cost is to indicate the percentage of gross profit realized on a single sale of a single unit of specified merchandise. If, for example, a 24-pound sack of flour cost \$1.00 delivered at a trading post and retailed at \$1.25, the profit was 25 cents and the markup was 25 percent of cost. Of course, the profit per article sold may also be expressed as a percentage of the retail price. In the example given, the percent markup on cost is but 20 percent when figured on the basis of sales.

A word of caution concerning the relative importance of unweighted markups on each and every item of merchandise sold at retail seems timely here. The writers do not place great emphasis upon them for the reason that they indicate nothing more than the gross profit on a single sale of a single unit of merchandise. A better idea of gross margins and net profits will be obtained further on in this report under the discussion of operating results.

It will be understood, of course, that the profit per article sold is a gross, not a net, profit and that the volume of sales varies greatly with the different items of merchandise handled. Generally speaking, markups are lowest on staple articles of merchandise moving in large volume and highest on perishables, luxuries, and specialities for which there is little demand. As indicated elsewhere in this report, the markups on flour tend to be low while on "10-gallon" hats they are relatively high. Large volumes of flour are handled while relatively few "10-gallon" hats are sold in the course of the year. This, however, does not seem to be an invariable rule in the case of the trading posts, since some of the necessities, women's dress goods and thread for example, carry high markups.

The markups herein reported are based upon credit prices. In addition to credit prices, most of the traders reported cash prices which are somewhat lower. Normally, however, cash prices are of relative unimportance to the Navajos, since the bulk of their trading is on the basis of unsecured credit running six months or longer.

Most traders have a price of markup policy which is designed, everything considered, to yield a given gross income for the year. This gross margin or markup is, of course, a weighted average markup including all the different items of merchandise sold. In a weighted average gross margin, or markup, the weight or influence of the markup on a particular item of merchandise is no greater than its volume of sales relative to the volume of all other sales. A high markup on an item of merchandise for which there is only a limited demand will have little influence on the average markup or gross margin of the trading post. Unweighted average markups may, therefore, be higher than weighted.

The markups presented in Tables 58 to 93, pp. 65, to 89, inclusive, are, of course, unweighted, as the writers were unable to gather data on the volumes of the articles bought at wholesale. It will be interesting to observe these unweighted markups as presented in the tables which follow and later compare them with the weighted average gross margins or markups shown in Tables 101 and 102, pp. 99 and 100, respectively.

Table 57, p. 64, indicates the unweighted average percentage markups for each of the three periods indicated and the number of trading posts included in the averages, while Tables 58, 59, and 60, pp. 65, 66, and 67, respectively, show these markups in ascending order for each of the three consecutive periods. After perusing these three tables, it will be interesting to note how these markups vary with the types of merchandise handled, as indicated in Table 61, p. 68. In each of the three periods, the markups on feeding stuffs averaged lowest, those on miscellaneous items - harness, wagons, and axes next; those on men's work clothes next; and those on women's goods highest. In the list of groceries, coffee, sugar, flour, and potatoes competed for position among the lower markups, while canned goods, salt sides, and fats soared to levels suggestive of luxury goods. Since the Navajos are mutton eaters and produce an inadequacy of fruits, vegetable and milk for their needs, every consideration of their welfare demands that canned fruits, vegetables, and milk, particularly tomatoes and milk, be made available to them at lowest consistent markups.

Among women's goods, no luxury item is included. Shawls, according to the Navajo women's style of dress, are just as essential as their blouses and skirts. It is interesting to observe that thread, one of the most essential items, since Navajo women still make their own clothes, carried the highest average markup on cost of all the items studied, or 132 to 139 percent.

In the case of flour, the markups varied from 5 to 97 percent in the first half of 1933; from 1 to 60 percent in the second half of 1933; and from 3 to 46 percent in the first half of 1934.

The markups on sugar varied from 23 to 107 percent in the first half of 1933; from 20 to 94 percent in the second half of 1933; and from 20 to 104 percent in the first half of 1934.

The markups on coffee varied from 13 to 72 percent in the first half of 1933; from 10 to 72 percent in the second half of 1933; and from 11 to 51 percent in the first half of 1934.

The markups on fats varied from 19 to 125 percent in the first half of 1933; from 15 to 111 percent in the second half of 1933; and from 16 to 116 percent in the first half of 1934.

The markups on potatoes varied from 7 to 123 percent in the first half of 1933; from -6 to 67 percent in the second half of 1933; and from -3 to 99 percent in the first half of 1934.

The markups on canned tomatoes varied from 30 to 129 percent in the first half of 1933; from 29 to 127 percent in the second half of 1933; and from 29 to 90 percent in the first half of 1934.

The markups on canned peaches varied from 30 to 157 percent in the first half of 1933; from 25 to 128 percent in the second half of 1933; and from 25 to 135 percent in the first half of 1934.

The markups on canned pears varied from 12 to 106 percent in the first half of 1933; from 17 to 149 percent in the second half of 1933; and from 27 to 139 percent in the first half of 1934.

The markups on corned beef varied from 27 to 143 percent in the first half of 1933; from 23 to 124 percent in the second half of 1933; and from 27 to 121 percent in the first half of 1934.

The markups on canned milk varied from 26 to 191 percent in the first half of 1933; from 28 to 191 percent in the second half of 1933; and from 26 to 163 percent in the first half of 1934.

The markups on jams and jellies varied from 15 to 161 percent in the first half of 1933; from 15 to 172 percent in the second half of 1933; and from 16 to 168 in the first half of 1934.

The markups on salt sides varied from 30 to 120 percent in the first half of 1933; from 14 to 136 percent in the second half of 1933; and from 29 to 131 percent in the first half of 1934.

The markups on corn and chops varied from 4 to 108 percent in the first half of 1933; from 4 to 108 percent in the second half of 1933; and from 12 to 87 percent in the first half of 1934.

The markups on oats varied from 14 to 67 percent in the first half of 1933; from 3 to 100 percent in the second half of 1933; and from 3 to 78 percent in the first half of 1934.

The markups on alfalfa varied from 5 to 100 percent in the first half of 1933; from 4 to 100 percent in the second half of 1933; and from 2 to 56 percent in the first half of 1934.

The markups on overalls varied from 24 to 208 percent in the first half of 1933; from 16 to 108 percent in the second half of 1933; and from 25 to 118 percent in the first half of 1934.

The markups on men's cotton shirts varied from 33 to 222 percent in the first half of 1933; from 12 to 199 percent in the second half of 1933; and from 25 to 170 percent in the first half of 1934.

The markups on men's work shoes varied from 30 to 192 percent in the first half of 1933; from 9 to 147 percent in the second half of 1933; and from 27 to 149 percent in the first half of 1934.

The markups on riding shoes varied from 28 to 65 percent in the first half of 1933; from 16 to 76 percent in the second half of 1933; and from 18 to 76 percent in the first half of 1934. This is a luxury goods with a rather narrow range of markups.

The markups on men's hats varied from 35 to 117 percent in the first half of 1933; from 18 to 129 percent in the second half of 1933; and from 13 to 119 percent in the first half of 1934.

The markups on men's underwear varied from 27 to 98 percent in the first half of 1933; from 16 to 170 percent in the second half of 1933; and from 22 to 174 percent in the first half of 1934.

The markups on men's work socks varied from 32 to 237 percent in the first half of 1933; from 30 to 179 percent in the second half of 1933; and from 28 to 179 percent in the first half of 1934.

The markups on women's shoes varied from 33 to 110 percent in the first half of 1933; from 30 to 115 percent in the second half of 1933; and from 33 to 111 percent in the first half of 1934.

The markups on women's dress goods, -prints, plaids, calicos, and the like, varied from 22 to 370 percent in the first half of 1933; from 4 to 158 percent in the second half of 1933; and from 21 to 126 percent in the first half of 1934.

The markups on velveteen varied from 46 to 202 percent in the first half of 1933; from 32 to 124 percent in the second half of 1933; and from 31 to 147 percent in the first half of 1934.

The markups on sateen varied from 40 to 212 percent in the first half of 1933; from 28 to 143 percent in the second half of 1933; and from 20 to 115 percent in the first half of 1934.

The markups on shawls and robes varied from 30 to 139 percent in the first half of 1933; from 25 to 67 percent in the second half of 1933; and from 23 to 57 percent in the first half of 1934.

The markups on women's cotton stockings varied from 35 to 344 percent in the first half of 1933; from 38 to 228 percent in the second half of 1933; and from 38 to 178 percent in the first half of 1934.

The markups on thread varied from 33 to 194 percent in the first half of 1933; from 31 to 185 percent in the second half of 1933; and from 30 to 185 percent in the first half of 1934.

The markups on wagons varied from 6 to 74 percent in the first half of 1933; from 21 to 52 percent in the second half of 1933; and from 7 to 64 percent in the first half of 1934.

The markups on harness varied from 16 to 113 percent in the first half of 1933; from 15 to 132 percent in the second half of 1933; and from 19 to 92 percent in the first half of 1934.

The markups on axes, a rather strict necessity among the Navajos, varied from 33 to 105 percent in the first half of 1933; from 19 to 146 percent in the second half of 1933; and from 24 to 147 percent in the first half of 1934.

At the bottom of Tables 62 to 93, pp. 69 to 89, inclusive, will be found the number of trading posts included in the frequency distributions and the arithmetic and median average percentage markups. The modes were not computed for the reason that there appeared to be none in the markups.

It is not at all surprising to find variations in markups within these periods, but it is rather surprising to observe that they vary so widely. The markups appeared to the writers to be influenced more by the individual price policy of the traders than by any other observable factor. It was generally conceded that markups were higher when business was dull than when business was good.

Table 57

Showing average markups\* for three 6-months periods, beginning January 1, 1933, and ending June 30, 1934, on basis of delivered wholesale costs of the items of merchandise listed, and the number of trading posts included in the average for each item and period, Navajo-Hopi Country

Items	Average Percent Markups			No. of Trading Posts included in Average		
	1st Half 1933	2nd Half 1933	1st Half 1934	1st Half 1933	2nd Half 1933	1st Half 1934
Flour.....	43	21	19	41	47	47
Sugar.....	57	49	58	40	47	47
Coffee.....	37	38	37	44	47	46
Fats.....	69	60	62	39	47	44
Potatoes.....	58	40	52	37	46	44
Canned tomatoes.....	81	66	61	41	44	47
Canned peaches.....	86	77	77	32	44	45
Canned pears.....	58	68	70	28	44	44
Corned beef.....	68	65	67	35	46	47
Canned milk.....	84	76	72	37	47	45
Jellies and jams.....	77	79	81	26	38	46
Salt sides.....	68	69	63	18	21	21
Corn and chops.....	35	26	29	10	23	25
Oats.....	38	31	25	21	37	40
Alfalfa.....	30	26	22	24	34	37
Overalls.....	77	53	59	38	46	46
Cotton Shirts.....	83	70	66	33	42	45
Work shoes.....	74	63	65	25	39	43
Riding shoes.....	40	44	44	7	22	31
Hats.....	64	57	57	29	39	41
Men's underwear.....	65	65	65	14	38	37
Work socks.....	110	94	87	29	44	46
Women's shoes.....	69	66	64	24	39	41
Cotton Yard Goods.....	102	78	70	40	44	44
Velveteens.....	94	72	69	35	46	45
Sateens.....	96	65	56	37	45	45
Shawls and Robes.....	53	45	44	30	44	47
Women's stockings.....	132	107	98	21	36	38
Thread.....	139	133	132	36	43	45
Wagons.....	46	39	29	7	8	26
Harness.....	25	41	44	4	17	29
Axes.....	65	63	66	23	43	40

\*Unweighted

Table 58

Showing average markups\* in ascending order for the 6-month period, beginning January 1, 1933, and ending June 30, 1933, on basis of delivered wholesale costs of the items of merchandise listed, and the number of trading posts included in the averages for each item.

Navajo-Hopi Country

Items	Average percent Markups	Number of trading posts included in averages
Harness.....	25	4
Alfalfa.....	30	24
Corn and chops.....	35	10
Coffee.....	37	44
Oats.....	38	21
Riding Shoes.....	40	7
Flour.....	43	41
Wagons.....	46	7
Shawls and robes.....	53	30
Sugar.....	57	40
Potatoes.....	58	37
Canned pears.....	58	28
Men's hats (10 gal.).....	64	29
Axes.....	65	23
Men's underwear.....	65	14
Corned beef.....	68	35
Salt sides.....	68	18
Fats.....	69	39
Women's shoes.....	69	24
Men's work shoes.....	74	25
Overalls.....	77	38
Jellies and jams.....	77	26
Canned tomatoes.....	81	41
Men's cotton shirts.....	83	33
Canned milk.....	84	37
Canned peaches.....	86	32
Velveteens.....	94	35
Sateens.....	96	37
Cotton yard goods.....	102	40
Men's work socks.....	110	29
Women's cotton stockings.....	132	21
Thread.....	139	36

\*Unweighted

Table 59

Showing average markups\* in ascending order for the 6 month period, beginning July 1, 1933, and ending December 31, 1933, on basis of delivered wholesale costs of the items of merchandise listed, and the number of trading posts included in the averages for each item.

Navajo-Hopi Country

Items	Average Percent markups	Number of trading posts included in averages
Flour.....	21	47
Corn and chops.....	26	23
Alfalfa.....	26	34
Oats.....	31	37
Coffee.....	38	47
Wagons.....	39	8
Potatoes.....	40	46
Harness.....	41	17
Riding Shoes.....	44	22
Shawls and robes.....	45	44
Sugar.....	49	47
Overalls.....	53	46
Men's hats.....	57	39
Fats.....	60	47
Men's work shoes.....	63	39
Axes.....	63	43
Corned beef.....	65	46
Men's underwear.....	65	38
Sateens.....	65	45
Canned tomatoes.....	66	44
Women's shoes.....	66	39
Canned pears.....	68	44
Salt sides.....	69	21
Men's cotton shirts.....	70	42
Velveteens.....	72	46
Canned milk.....	76	47
Canned peaches.....	77	44
Women's dress goods.....	78	44
Jellies and jams.....	79	38
Men's work socks.....	94	44
Women's cotton stockings.....	107	36
Thread.....	133	43

\*Unweighted

Table 60

Showing average markups\* in ascending order for the 6-month period, beginning January 1, 1934, and ending June 30, 1934, on basis of delivered wholesale costs of the items of merchandise listed, and the number of trading posts included in the averages for each item.

Navajo-Hopi Country

Items	Average Percent markups	Number of trading posts included in averages
Flour.....	19	47
Alfalfa.....	22	37
Oats.....	25	40
Corn and chops.....	29	25
Wagons.....	29	26
Coffee.....	37	46
Riding shoes.....	44	31
Shawls and robes.....	44	47
Harness.....	44	29
Potatoes.....	52	44
Sateens.....	56	45
Men's hats (10 gal.).....	57	41
Sugar.....	58	47
Overalls.....	59	46
Canned tomatoes.....	61	47
Fats.....	62	44
Salt sides.....	63	21
Women's shoes.....	64	41
Men's work shoes.....	65	43
Men's underwear.....	65	37
Axes.....	66	40
Men's cotton shirts.....	66	45
Corned beef.....	67	47
Velveteens.....	69	45
Cotton yard goods.....	70	44
Canned pears.....	70	44
Canned milk.....	72	45
Canned peaches.....	77	45
Jellies and jams.....	81	46
Men's work socks.....	87	46
Women's cotton stockings.....	98	38
Thread.....	132	45

\*Unweighted

Table 61

Showing average percentage markups\* in ascending order for the three 6-months periods January 1 to June 30, 1933; July 1 to December 31, 1933; and January 1 to June 30, 1934, by types of merchandise.

1st Half 1933		2nd Half 1933		1st Half 1934	
Type of Merchandise	Percentage Markups	Type of Merchandise	Percentage Markups	Type of Merchandise	Percentage Markups
<u>FEEDING STUFFS</u>					
Alfalfa.....	30	Corn and chops.....	26	Alfalfa.....	22
Corn and chops.....	35	Alfalfa.....	26	Oats.....	25
Oats.....	38	Oats.....	31	Corn and chops.....	29
<u>GROCERIES</u>					
Coffee.....	37	Flour.....	21	Flour.....	19
Flour.....	43	Coffee.....	38	Coffee.....	37
Sugar.....	57	Potatoes.....	40	Potatoes.....	52
Potatoes.....	58	Sugar.....	49	Sugar.....	58
Canned pears.....	58	Fats.....	60	Canned tomatoes.....	61
Corned beef.....	68	Corned beef.....	65	Fats.....	62
Salt sides.....	68	Canned tomatoes.....	66	Salt sides.....	63
Fats.....	69	Canned pears.....	68	Corned beef.....	67
Jellies and jams.....	77	Salt sides.....	69	Canned pears.....	70
Canned tomatoes.....	81	Canned milk.....	76	Canned milk.....	72
Canned milk.....	84	Canned peaches.....	77	Canned peaches.....	77
Canned peaches.....	86	Jellies and jams.....	79	Jellies and jams.....	81
<u>MEN'S WORK CLOTHES</u>					
Riding shoes.....	40	Riding shoes.....	44	Riding shoes.....	44
Men's hats (10 gal.)	64	Overalls.....	53	Men's hats (10 gal.)	57
Men's underwear.....	65	Men's hats (10 gal.)	57	Overalls.....	59
Men's work shoes.....	74	Men's work shoes.....	63	Men's work shoes.....	65
Overalls.....	77	Men's underwear.....	65	Men's underwear.....	65
Men's cotton shirts...	83	Men's cotton shirts...	70	Men's cotton shirts...	66
Men's work socks.....	110	Men's work socks.....	94	Men's work socks.....	87
<u>WOMEN'S GOODS</u>					
Shawls and robes.....	53	Shawls and robes.....	45	Shawls and robes.....	44
Women's shoes.....	69	Sateens.....	65	Sateens.....	56
Velveteens.....	94	Women's shoes.....	66	Women's shoes.....	64
Sateens.....	96	Velveteens.....	72	Velveteens.....	69
Cotton yard goods....	102	Cotton yard goods....	78	Cotton yard goods....	70
Women's cotton stockings.....	132	Women's cotton stockings.....	107	Women's cotton stockings.....	98
Thread.....	139	Thread.....	133	Thread.....	132
<u>MISCELLANEOUS</u>					
Harness.....	25	Wagons.....	39	Wagons.....	29
Wagons.....	46	Harness.....	41	Harness.....	44
Axes.....	65	Axes.....	63	Axes.....	66

\*Unweighted

Table 62

Flour

Showing frequency distributions of average percentage markups\* on delivered wholesale costs of flour, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

Markups	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	5	9	10
11 to 20 percent	6	19	18
21 to 30 "	7	11	15
31 to 40 "	8	2	5
41 to 50 "	3	3	1
51 to 60 "	6	3	0
61 to 70 "	3	0	0
71 to 80 "	2	0	0
81 to 90 "	3	0	0
91 to 100 "	1	0	0
Number of trading posts in distribution	41	47	47
Arithmetic average of percentage markups	43	21	19
Median percentage markups	40	19	18

\*Unweighted

Table 63

Sugar

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of sugar, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

Markups	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	0	0	0
11 to 20 percent	0	2	1
21 to 30 "	2	8	2
31 to 40 "	8	5	6
41 to 50 "	8	11	7
51 to 60 "	5	10	12
61 to 70 "	8	9	7
71 to 80 "	3	0	7
81 to 90 "	3	1	5
91 to 100 "	2	1	0
101 to 110 "	1	0	0
Number of trading posts in distribution	40	47	47
Arithmetic average of percentage markups	57	49	58
Median percentage markups	53.5	48	57

\*Unweighted

Table 64

Coffee

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of coffee, by 6-month periods beginning January 1, 1933 and ending June 30, 1934

<u>Markups</u>	<u>Frequencies</u>		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	0	1	0
11 to 20 percent	1	2	3
21 to 30 "	16	11	3
31 to 40 "	8	11	23
41 to 50 "	16	17	16
51 to 60 "	2	4	1
61 to 70 "	0	0	0
71 to 80 "	1	1	0
Number of trading posts in distribution	44	47	46
Arithmetic average of percentage markups.	37	38	37
Median percentage markups	37	40	37

\*Unweighted

Table 65

Fats

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of fats, by 6-months periods beginning January 1, 1933 and ending June 30, 1934.

<u>Markups</u>	<u>Frequencies</u>		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	0	0	0
11 to 20 percent	1	2	1
21 to 30 "	5	2	2
31 to 40 "	2	5	5
41 to 50 "	2	6	4
51 to 60 "	5	9	10
61 to 70 "	3	8	8
71 to 80 "	6	7	8
81 to 90 "	6	4	0
91 to 100 "	4	2	2
101 to 110 "	3	1	2
111 to 120 "	1	1	2
121 to 130 "	1	0	0
Number of trading posts in distribution	39	47	44
Arithmetic average of percentage markups	69	60	62
Median percentage markups	74	60	60

\*Unweighted

Table 66

Potatoes

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of potatoes, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

<u>Markups</u>	<u>Frequencies</u>		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	1	2	1
11 to 20 percent	2	4	0
21 to 30 percent	3	10	4
31 to 40 "	4	8	6
41 to 50 "	5	8	10
51 to 60 "	5	11	10
61 to 70 "	7	3	7
71 to 80 "	4	0	3
81 to 90 "	0	0	1
91 to 100 "	3	0	2
101 to 110 "	0	0	0
111 to 120 "	2	0	0
121 to 130 "	1	0	0

Number of trading posts in distribution	37	46	44
Arithmetic average of percentage markups	58	40	52
Median percentage markups	57	39	51

\*Unweighted

Table 67

## Canned Tomatoes

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of canned tomatoes, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

<u>Markups</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	0	0	0
11 to 20 percent	0	0	0
21 to 30 "	1	1	1
31 to 40 "	0	4	4
41 to 50 "	2	6	12
51 to 60 "	4	7	6
61 to 70 "	6	5	7
71 to 80 "	7	11	11
81 to 90 "	5	6	6
91 to 100 "	6	3	0
101 to 110 "	8	0	0
111 to 120 "	1	0	0
121 to 130 "	1	1	0
Number of trading posts in distribution	41	44	47
Arithmetic average of percentage markups	81	66	61
Median percentage markups	81	68	62

\*Unweighted

Table 68

## Canned Peaches

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of canned peaches, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

Markups	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	0	0	0
11 to 20 percent	0	0	0
21 to 30 percent	1	2	2
31 to 40 "	0	5	2
41 to 50 "	2	4	6
51 to 60 "	4	3	5
61 to 70 "	6	2	4
71 to 80 "	1	5	7
81 to 90 "	3	7	6
91 to 100 "	8	7	2
101 to 110 "	2	3	4
111 to 120 "	2	2	3
121 to 130 "	0	4	0
131 to 140 "	0	0	4
141 to 150 "	1	0	0
151 to 160 "	2	0	0

Number of trading posts in distribution	32	44	45
Arithmetic average of percentage markups	86	77	77
Median percentage markups	89	84	79

\*Unweighted

Table 69

Canned Pears

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of canned pears, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

<u>Markups</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	0	0	0
11 to 20 percent	1	1	0
21 to 30 "	4	4	4
31 to 40 "	2	2	1
41 to 50 "	3	6	3
51 to 60 "	4	7	8
61 to 70 "	6	6	10
71 to 80 "	2	3	4
81 to 90 "	2	6	7
91 to 100 "	3	3	1
101 to 110 "	1	2	3
111 to 120 "	0	3	2
121 to 130 "	0	0	0
131 to 140 "	0	0	1
141 to 150 "	0	1	0

Number of trading posts in distribution	28	44	44
Arithmetic average of percentage markups	58	68	70
Median percentage markups	59	63	66

\*Unweighted

Table 70

## Corned Beef

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of corned beef, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

<u>Markups</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	0	0	0
11 to 20 percent	0	0	0
21 to 30 percent	4	2	2
31 to 40 "	2	6	4
41 to 50 "	3	2	6
51 to 60 "	9	16	11
61 to 70 "	6	4	6
71 to 80 "	0	4	5
81 to 90 "	3	3	3
91 to 100 "	1	4	2
101 to 110 "	3	4	6
111 to 120 "	3	0	1
121 to 130 "	0	1	1
131 to 140 "	0	0	0
141 to 150 "	1	0	0

Number of trading posts in distribution	35	46	47
Arithmetic average of percentage markups	68	65	67
Median percentage markups	62	58	63

\*Unweighted

Table 71

## Canned Milk

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of canned milk, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

<u>Markups</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
20 percent or less	0	0	0
21 to 40 percent	2	7	7
41 to 60 "	12	17	17
61 to 80 "	7	2	2
81 to 100 "	3	7	5
101 to 120 "	4	10	12
121 to 140 "	7	2	1
141 to 160 "	0	0	0
161 to 180 "	0	1	1
181 to 200 "	2	1	0
Number of trading posts in distribution	37	47	45
Arithmetic average of percentage markups	84	76	72
Median percentage markups	73	58	52

\*Unweighted

Table 72  
Jams and Jellies

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of jams and jellies, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

<u>Markups</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
20 percent or less	1	2	1
21 to 40 percent	2	4	4
41 to 60 "	7	9	10
61 to 80 "	6	7	9
81 to 100 "	4	6	11
101 to 120 "	4	4	2
121 to 140 "	1	4	5
141 to 160 "	0	1	3
161 to 180 "	1	1	1
Number of trading posts in distribution	26	38	46
Arithmetic average of percentage markups	77	79	81
Median percentage markups	71	77	79

\*Unweighted

Table 73

## Salt Sides

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of salt sides, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

<u>Markups</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	0	0	0
11 to 20 percent	0	1	0
21 to 30 "	1	0	2
31 to 40 "	3	2	7
41 to 50 "	3	7	0
51 to 60 "	1	2	3
61 to 70 "	3	1	1
71 to 80 "	1	0	2
81 to 90 "	2	2	2
91 to 100 "	1	2	1
101 to 110 "	0	0	0
111 to 120 "	3	1	1
121 to 130 "	0	1	0
131 to 140 "	0	2	2

Number of trading posts in distribution	18	21	21
Arithmetic average of percentage markups	68	69	63
Median percentage markups	61	53	57

\*Unweighted

Table 74

## Corn and Chops

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of corn and chops, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

<u>Markups</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	1	4	0
11 to 20 percent	3	6	7
21 to 30 "	0	8	9
31 to 40 "	4	2	6
41 to 50 "	0	0	2
51 to 60 "	1	2	0
61 to 70 "	0	0	0
71 to 80 "	0	0	0
81 to 90 "	0	0	0
91 to 100 "	0	0	1
101 to 110 "	1	1	0
Number of trading posts in distribution	10	23	25
Arithmetic average of percentage markups	35	26	29
Median percentage markups	33	24	27

\*Unweighted

Table 75

## Oats

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of oats, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

<u>Markups</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	0	4	4
11 to 20 percent	4	10	11
21 to 30 "	4	8	16
31 to 40 "	2	6	6
41 to 50 "	7	4	1
51 to 60 "	2	2	0
61 to 70 "	2	2	1
71 to 80 "	0	0	1
81 to 90 "	0	0	1
91 to 100 "	0	1	0
Number of trading posts in distribution	21	37	40
Arithmetic average of percentage markups	38	31	25
Median percentage markups	42	25	22

\*Unweighted

Table 76

## Alfalfa

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of alfalfa, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

<u>Markups</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	3	5	9
11 to 20 percent	2	10	7
21 to 30 "	9	8	8
31 to 40 "	6	6	12
41 to 50 "	2	2	0
51 to 60 "	1	2	1
61 to 70 "	0	0	0
71 to 80 "	0	0	0
81 to 90 "	0	0	0
91 to 100 "	1	1	0
Number of trading posts in distribution	24	34	37
Arithmetic average of percentage markups	30	26	22
Median percentage markups	28	24	23

\*Unweighted

Table 77

## Overalls

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of overalls, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

<u>Markups</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
20 percent or less	0	3	0
21 to 40 percent	6	11	8
41 to 60 "	9	17	21
61 to 80 "	8	10	10
81 to 100 "	9	3	6
101 to 120 "	2	2	1
121 to 140 "	0	0	0
141 to 160 "	2	0	0
161 to 200 "	0	0	0
201 to 210 "	2	0	0
Number of trading posts in distribution	38	46	46
Arithmetic average of percentage markups	77	53	59
Median percentage markups	66	51	53

\*Unweighted

Table 78

## Men's Cotton Shirts

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of men's cotton shirts, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

<u>Markups</u>	Frequencies		
	: 1st Half : 1933	: 2nd Half : 1933	: 1st Half : 1934
20 percent or less	0	1	0
21 to 40 percent	5	6	7
41 to 60 "	10	17	18
61 to 80 "	6	7	8
81 to 100 "	5	3	9
101 to 120 "	1	5	2
121 to 140 "	0	1	0
141 to 160 "	0	0	0
161 to 180 "	4	1	1
181 to 200 "	1	1	0
201 to 220 "	0	0	0
221 to 240 "	1	0	0
Number of trading posts in distribution	33	42	45
Arithmetic average of percentage markups	83	70	66
Median percentage markups	65	56	59

\*Unweighted

Table 79  
Men's Work Shoes

Showing frequency distribution on average percentage markups\* on delivered wholesale costs of men's work shoes, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

<u>Markups</u>	Frequencies		
	: 1st Half : 1933	: 2nd Half : 1933	: 1st Half : 1934
20 percent or less	0	0	0
21 to 40 percent	2	4	7
41 to 60 "	11	19	16
61 to 80 "	4	6	9
81 to 100 "	5	7	6
101 to 120 "	0	1	4
121 to 140 "	1	0	0
141 to 160 "	1	1	1
161 to 180 "	0	0	0
181 to 200 "	1	0	0
Number of trading posts in distribution	25	39	43
Arithmetic average of percentage markups	74	63	65
Median percentage markups	60	57	55

\*Unweighted

Table 80

## Riding Shoes

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of riding shoes, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

Markups	Frequencies		
	: 1st Half : 2nd Half		1st Half
	1933	1933	1934
10 percent or less	0	0	0
11 to 20 percent	0	1	1
21 to 30 "	1	1	3
31 to 40 "	4	9	9
41 to 50 "	0	5	8
51 to 60 "	1	2	6
61 to 70 "	1	2	3
71 to 80 "	0	2	1
Number of trading posts in distribution	7	22	31
Arithmetic average of percentage markups	40	44	44
Median percentage markups	35	41	46

\*Unweighted

Table 81

## Men's Hats

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of men's hats, by 6-months periods beginning January 1, 1933 and ending June 30, 1934.

Markups	Frequencies		
	: 1st Half : 2nd Half		1st Half
	1933	1933	1934
10 percent or less	0	0	0
11 to 20 percent	0	1	1
21 to 30 "	0	0	0
31 to 40 "	4	5	6
41 to 50 "	4	11	11
51 to 60 "	6	6	7
61 to 70 "	3	10	11
71 to 80 "	8	3	0
81 to 90 "	1	1	2
91 to 100 "	1	0	0
101 to 110 "	1	0	1
111 to 120 "	1	1	2
121 to 130 "	0	1	0
Number of trading posts in distribution	29	39	41
Arithmetic average of percentage markups	64	57	57
Median percentage markups	62	55	55

\*Unweighted

Table 82

Men's Underwear

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of men's underwear, by 6-months periods beginning January 1, 1933 and ending June 30, 1934

Markups	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
20 percent or less	0	1	0
21 to 40 percent	3	4	6
41 to 60 "	3	11	15
61 to 80 "	3	13	8
81 to 100 "	5	8	5
101 to 120 "	0	0	1
121 to 140 "	0	0	0
141 to 160 "	0	0	0
161 to 180 "	0	1	2
Number of trading posts in distribution	14	38	37
Arithmetic average of percentage markups	65	65	65
Median percentage markups	73	66	58

\*Unweighted

Table 83  
Men's Work Socks

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of men's work socks, by 6-months period beginning January 1, 1933 and ending June 30, 1934.

Markups	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
20 percent or less	0	0	0
21 to 40 percent	2	3	4
41 to 60 "	4	8	6
61 to 80 "	6	5	11
81 to 100 "	3	11	8
101 to 120 "	2	7	11
121 to 140 "	3	3	5
141 to 160 "	2	4	0
161 to 180 "	3	3	1
181 to 200 "	3	0	0
201 to 220 "	0	0	0
221 to 240 "	1	0	0
Number of trading posts in distribution	29	44	46
Arithmetic average of percentage markups	110	94	87
Median percentage markups	99	97	87

\*Unweighted

Table 84

## Women's Shoes

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of women's shoes, by 6-months periods beginning January 1, 1933 and ending June 30, 1934.

Markups	Frequencies		
	1st Half		2nd Half
	1933	1933	1934
10 percent or less	0	0	0
11 to 20 percent	0	0	0
21 to 30 "	0	1	0
31 to 40 "	1	2	4
41 to 50 "	4	8	7
51 to 60 "	6	5	10
61 to 70 "	1	8	6
71 to 80 "	4	4	4
81 to 90 "	3	4	6
91 to 100 "	4	6	0
101 to 110 "	1	0	3
111 to 120 "	0	1	1
Number of trading posts in distribution	24	39	41
Arithmetic average of percentage markups	69	66	64
Median percentage markups	68	65	60

\*Unweighted

Table 85  
Women's Dress Goods

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of women's dress goods, by 6-months periods beginning January 1, 1933 and ending June 30, 1934.

Markups	Frequencies		
	1st Half		2nd Half
	1933	1933	1934
20 percent or less	0	1	0
21 to 40 percent	5	6	7
41 to 60 "	5	8	7
61 to 80 "	5	7	14
81 to 100 "	10	11	9
101 to 120 "	0	6	4
121 to 140 "	8	3	3
141 to 160 "	3	2	0
160 to 180 "	1	0	0
181 to 200 "	1	0	0
201 to 220 "	1	0	0
221 percent or above	1	0	0
Number of trading posts in distribution	40	44	44
Arithmetic average of percentage markups	102	78	70
Median percentage markups	89	81	67

\*Unweighted

Table 86

## Velveteen

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of velveteen, by 6-months periods beginning January 1, 1933 and ending June 30, 1934.

Markups	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
20 percent or less	0	0	0
21 to 40 percent	0	3	5
41 to 60 "	4	15	12
61 to 80 "	9	9	16
81 to 100 "	9	15	11
101 to 120 "	10	3	0
121 to 140 "	2	1	0
141 to 160 "	0	0	1
161 to 180 "	0	0	0
181 to 200 "	0	0	0
201 to 220 "	1	0	0
Number of trading posts in distribution	35	46	45
Arithmetic average of percentage markups	94	72	69
Median percentage markups	91	74	72

\*Unweighted

Table 87

## Sateen

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of sateen, by 6-months periods beginning January 1, 1933 and ending June 30, 1934.

Markups	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
20 percent or less	0	0	1
21 to 40 percent	2	6	6
41 to 60 "	4	13	24
61 to 80 "	6	20	9
81 to 100 "	12	2	3
101 to 120 "	4	3	2
121 to 140 "	5	0	0
141 to 160 "	3	1	0
161 to 180 "	0	0	0
181 to 200 "	0	0	0
201 to 220 "	1	0	0
Number of trading posts in distribution	37	45	45
Arithmetic average of percentage markups	96	65	56
Median percentage markups	94	64	57

\*Unweighted

Table 88

## Shawls and robes

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of shawls and robes, by 6-months periods beginning January 1, 1933 and ending June 30, 1934.

Markups	Frequencies		
	: 1st half : 2nd Half : 1st Half	: 1933 : 1933 : 1934	
10 percent or less	0	0	0
11 to 20 percent	0	0	0
21 to 30 "	1	4	6
31 to 40 "	6	12	9
41 to 50 "	8	14	17
51 to 60 "	10	12	15
61 to 70 "	1	2	0
71 to 80 "	3	0	0
81 percent or above	1	0	0
Number of trading posts in distribution	30	44	47
Arithmetic average of percentage markups	53	45	44
Median percentage markups	50	44	47

\*Unweighted

Table 89

## Women's cotton Stockings

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of women's cotton stockings, by 6-months periods beginning January 1, 1933 and ending June 30, 1934.

Markups	Frequencies		
	: 1st Half : 2nd Half : 1st Half	: 1933 : 1933 : 1934	
20 percent or less	0	0	0
21 to 40 percent	1	1	1
41 to 60 "	2	5	7
61 to 80 "	1	7	4
81 to 100 "	3	6	12
101 to 120 "	4	4	4
121 to 140 "	2	6	4
141 to 160 "	3	1	4
161 to 180 "	1	3	2
181 to 200 "	1	2	0
201 to 220 "	1	0	0
221 to 240 "	0	1	0
241 to 260 "	1	0	0
261 percent or above	1	0	0
Number of trading posts in distribution	21	36	38
Arithmetic average of percentage markups	132	107	98
Median percentage markups	116	98	97

\*Unweighted

Table 90

Thread

Showing frequency distribution of average percentage markups\*  
on delivered wholesale costs of thread, by 6-months periods  
beginning January 1, 1933 and ending June 30, 1934.

Markups	Frequencies		
	: 1st Half : 1933	: 2nd Half : 1933	: 1st Half : 1934
20 percent or less	0	0	0
21 to 40 percent	3	5	6
41 to 60 "	2	2	1
61 to 80 "	0	0	1
81 to 100 "	0	1	0
101 to 120 "	1	1	0
121 to 140 "	4	6	9
141 to 160 "	14	15	16
161 to 180 "	11	10	11
181 to 200 "	1	3	1
Number of trading posts in distribution	36	43	45
Arithmetic average of percentage markups	139	133	132
Median percentage markups	155	150	151

\*Unweighted

Table 91

Wagons

Showing frequency distribution of average percentage markups\*  
on delivered wholesale costs of wagons, by 6-months periods  
beginning January 1, 1933 and ending June 30, 1934.

Markups	Frequencies		
	: 1st Half : 1933	: 2nd Half : 1933	: 1st Half : 1934
10 percent or less	1	0	1
11 to 20 percent	0	0	5
21 to 30 "	0	3	11
31 to 40 "	0	0	4
41 to 50 "	3	3	3
51 to 60 "	2	2	1
61 to 70 "	0	0	1
71 to 80 "	1	0	0
Number of trading posts in distribution	7	8	26
Arithmetic average of percentage markups	46	39	29
Median percentage markups	49	43	27

\*Unweighted

Table 92

HARNESS

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of harness, by 6-months periods beginning January 1, 1933 and ending June 30, 1934.

<u>Markups</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	0	0	0
11 to 20 percent	1	2	1
21 to 30 "	5	5	3
31 to 40 "	1	5	10
41 to 50 "	0	3	3
51 to 60 "	0	1	1
61 to 70 "	0	1	1
71 to 80 "	0	0	0
81 to 90 "	0	0	1
91 to 100 "	0	0	1
101 percent or above	1	1	0
Number of trading posts in distribution	8	18	21
Arithmetic average of percentage markups	38	41	41
Median percentage markups	29	34	35

\*Unweighted

Table 93

AXES

Showing frequency distribution of average percentage markups\* on delivered wholesale costs of axes, by 6-months periods beginning January 1, 1933 and ending June 30, 1934.

<u>Markups</u>	Frequencies		
	1st Half 1933	2nd Half 1933	1st Half 1934
10 percent or less	0	0	0
11 to 20 percent	0	2	0
21 to 30 "	0	0	1
31 to 40 "	4	5	8
41 to 50 "	3	10	3
51 to 60 "	5	8	6
61 to 70 "	3	8	11
71 to 80 "	0	0	2
81 to 90 "	3	1	2
91 to 100 "	3	2	2
101 to 110 "	2	3	1
111 to 120 "	0	2	1
121 to 130 "	0	1	1
131 to 140 "	0	0	0
141 to 150 "	0	1	2
Number of trading posts in distribution	23	43	40
Arithmetic average of percentage markups	65	63	66
Median percentage	56	55	63

\*Unweighted

Results of Operations

Out of 53 schedules taken, 19 yielded data that appeared sufficiently accurate for the purpose of computing profit and loss statements in accordance with accepted accounting procedure.

In making profit and loss statements the essential data are:

- (1) An accurate record of cash and credit sales, including both merchandise and Indian products.
- (2) Accurate opening and closing inventories of merchandise and Indian products.
- (3) An accurate record of all purchases of both merchandise and Indian products.
- (4) An accurate record of operating expenses, including salaries and wages, taxes, bond expense, freight, repairs on buildings and fixtures, depreciation wherever allowable, interest, insurance, fuel, losses, and all other expenses which can promptly be charged against the business.

Under salaries and wages, the salaries of hired managers and clerks and the wages of common labor are allowed as operating expenses. Salaries of owner-operators of trading posts are entered, not as operating expenses, but as deductions from the capital account after profits are determined.

- (5) An accurate record of cash and merchandise withdrawn by the traders. In this report, withdrawals are divided into two kinds, - those chargeable to operating expenses and those chargeable to the owner as deductions from his capital account after profits are determined. In some cases, this was necessary in order to distinguish the trader's personal expenditures from his business expenditures. One of the purposes of this study is to determine the trader's net income from his business after the cost of merchandise and Indian products and operating expenses have been paid.

Some of the defects found in the 34 schedules that could not be used in connection with profit and loss statements were a lack of records of cash and merchandise withdrawn for personal use, incomplete records of purchases and sales, incomplete inventories, and incomplete records of operating expenses. In some cases, it appeared that significant withdrawals had been made from the business for other than trading post business and not shown on the books either as withdrawals from the capital account or an increase in assets. Apparent examples of such withdrawals were improvement about the home, including plumbing, light and water plants, and expenditures for the purchase and operation of family automobiles at some trading posts, where it appeared that expenditures for purchase and operation of automobiles and trucks used in connection with the business were made.

The writers are of the opinion that the trader should segregate his personal expenditures from his business expenditures as is customary with business men in

towns and cities, notwithstanding the fact that traders must live at the trading posts.

The procedure, then, may be summarized as follows:

- (1) Determine net sales of both merchandise and Indian products--gross sales less returns, discounts, and allowances.
- (2) Determine the cost of goods sold. This is done by adding the purchase of merchandise and Indian products made during the year to the opening inventory and from this sum subtracting the closing inventory.
- (3) Determine gross profit. This is done by subtracting the cost of goods sold from sales.
- (4) Determine net operating profit. This is done by subtracting overhead and operating expenses from gross profits. This procedure is illustrated in Tables 94 and 95, pp. 94 and 95 respectively.

Totals and Averages. In Table 94 are presented total sales, costs, gross profits, expenses, and net profits of 19 widely-distributed trading posts in the Navajo-Hopi country, and in Table 95 are presented the averages of figures shown in Table 94. Of course, not all trading posts are of average size, but this table indicates that if all trading posts transacted the average volume of business of the 19 trading posts studied for 1933, their markups, costs, and expenses were such that they each would have received approximately \$4,600 of net profits out of which the traders might live, meet obligations, or enhance their capital account.

It will be noted that the cost of merchandise including Indian products amounted to 73.8 percent of sales; that gross profits amounted to the remaining 26.2 percent of sales; that operating expenses amounted to 13.8 percent of sales; and that net profits amounted to 12.4 percent of sales. On the other hand, sales amounted to 135.5 percent of the cost of goods sold; gross profit, to 35.5 percent of cost; operating expenses, to 18.7 percent of cost; and net profit, to 16.8 percent of cost. It will also be noted that the stock turn of the trading posts was 5.1 times a year.

Comparisons. The figures presented in Tables 94 and 95 become more significant when compared with the operating results of other businesses. It would have been desirable, of course, could we have found concurrent data on country general stores for 1933 for comparison with our trading post data. It was impossible, however, to find such data, but reports of the Federal Trade Commission to the Senate\* carry data on sales, cost of merchandise sold, operating expenses, and profits of a large number of chain stores operating over a number of years. While chain store data are not directly comparable in point of time with our trading post data, the comparisons will doubtless prove instructive and are presented merely for what they are worth.

\*Senate Documents 12, 29 to 31, 51, 82, and 100, 72nd Congress, First Session; 142, 153, 156, 170, and 178, 72nd Congress, Second Session; and 73rd Congress, First Session No. 40, and No. 99, Second Session.

In Table 96, p. 95, the operating results of 19 Navajo trading posts are contrasted with the operating results of 1,337 chains operating 291,401 store years, for which data were gathered upon the years 1913 to 1930, inclusive, representing some 26 kinds of business in the United States. These data, therefore, form something of a composite of operating results of American retail chain stores over the period which they cover.

Between the chain store and trading post figures, some similarities and important differences should be noted. The volume of sales of the average chain store amounted to \$87,476, or 2.4 times the volume of sales of the average trading post, which amounted to \$36,927. The cost of merchandise sold by the average chain store amounted to \$63,499, or 72.6 percent of sales, while that of the average trading post amounted to \$27,248, or 73.8 percent of sales. Since chain stores are reported to be able to buy cheaper than independents, it seemed reasonable to presume that the trading posts probably pay somewhat higher prices at wholesale than the chains used in this comparison\*. The gross margin or profit of the average chain store amounted to \$23,977, or 27.4 percent of sales, while that of the average trading post amounted to \$9,679, or 26.2 percent of sales. The operating expense of the average chain store amounted to \$20,088, or 23 percent of sales, while that of the average trading post amounted to \$5,091, or 13.8 percent of sales. This latter figure compares with an operating expense of 13.6 percent of sales for country general stores reported by the Federal Trade Commission\*\*. The net operating profit of the average chain store amounted to \$3,889, or 4.5 percent of sales, while that of the average trading post amounted to \$4,587, or 12.4 percent of sales. The stock turn of the average chain was 6 times, while that of the average trading post was 5.1 times a year.

The foregoing discussion of Table 96 might be considered as pertaining to retail chains in general. Probably a closer comparison would be the operating results of retail chain stores in the Mountain States, of which the Navajo country is essentially a part.

A comparison of Navajo trading post operations in 1933 and Mountain States Chains in 1928 are presented in Table 97, p. 96. It will be noted that the sales of Mountain States chain stores were 2.3 times as great as those of the trading posts; that the gross profit of the chain stores was 22.6 percent, while that of the trading posts was 26.2 percent of sales; that operating expenses of the retail chains were 19.3 percent, while those of the trading posts were 13.8 percent of sales; and that the net operating profit of the retail chains was 3.3 percent, while that of the trading posts was 12.4 percent. The turn-over of the retail chains was 4.1 times, while that of the trading posts was 5.1 times a year.

Probably a somewhat closer comparison is that of general merchandise stores with Indian trading posts, as the former are generally located in towns of 10,000 or less, or in country villages. Table 98, p. 96, presents such a comparison of operating results of 940 general merchandise store years gathered over the years 1913 to 1930, inclusive, and the 19 trading posts for which data were gathered for 1933.

\*Sen. Doc. No. 4, 74th Congress, 1st Session; Chain Stores; Final Report on the Chain-Store Investigation; pp. 24 and 53, Washington, 1935.

\*\*Fifteenth Census of the United States, Census of Distribution: U. S. Dept. of Comm., Bureau of Census, p. 19: Washington, 1934.

The sales volume of the general merchandise stores averaged 2.6 times as great as that of the trading posts. The cost of merchandise sold by the average general merchandise store was 79.8 percent, while that of the trading posts was 73.8 percent of sales; the gross margin or profit of the general merchandise stores was 20.2 percent, while that of the trading posts was 26.2 percent; the operating expenses of the general merchandise stores was 16.5 percent, while that of the trading posts was 13.8 percent of sales; and the net operating profit of the general merchandise stores was 3.7 percent, while that of the trading posts was 12.4 percents of sales. The stock-turn of the general merchandise stores was 3.4 times, while that of the trading posts was 5.1 times a year.

Other differences between the general merchandise stores and the trading posts are that the former are business investments of large corporations paying salaries and wages to everybody from manager down, while the trading posts are usually owned by individuals or partnerships in which the owners endeavor to earn a living for their families out of the business while maintaining or increasing their capital. It is not customary for individual owners or partners or their families to allow salaries to themselves as charges against operating expense. Since the trading post tends to be of family size, or family operated, the charges for clerical help are lower than in the case of chain stores. In other words, both positively and relatively, the trader employs less help than the chain store, and the trader's living expenses come out of net profit instead of operating expense. Another difficulty which must not be ignored is that the chains operate largely for cash, or for a high percentage of cash, while the trading posts operate largely on unsecured credit, or for a higher percentage of unsecured credit. Chain store credits are normally limited to 30 days, while trading post's credits may extend for 6 months or longer.

Apparently, many of the trading posts are too small and their credit operations are too large and too risky for as low percentages of net operating costs as are earned by the chain stores. As may be observed from Table 101, p. 99, however, the ratio of net profits to sales does not decline with increasing volume of business per trading post. For example, the 3 largest trading posts included in these tables had the highest ratios of net profits to sales. In other words, with retail prices tending to remain relatively high and stationary, it appears that there is a tendency for the larger trading post to earn the larger ratios of net operating profits to sales. Probably more important than any other factors are the financial strength and the business ability of the individual trader.

It appears that in any endeavor to improve the efficiency of the trading posts and their services rendered the Indians, one is confronted by two rather conflicting requirements. The first is a trading post of sufficient capital and volume of business to assure the greatest possible effectiveness in the purchase and sale of both merchandise and Indian products. This first requirement calls for a trader of sufficient capital, experience, and ability to extend large volumes of credit to Indians and make collections. The second requirement is the matter of distribution, accessibility, or convenience of the trading posts to the Indians as consumers. Apparently, the first calls for rather large trading posts doing, perhaps, a business amounting to \$50,000 or more per annum. This, of course, presumes a rather large trading area for each trading post. Assuming the income of the average Navajo family to be \$300 or less, each trading post would need the entire patronage of 200 or more Navajo families to assure a business of \$50,000 or more per annum. Probably the reservation would thus support about 50 trading posts provided they were well distributed and each had 300,000 acres or more as a trade

area. This would call for trading posts averaging between 20 and 25 miles apart. Size will probably have to be sacrificed to a certain extent in the Navajo country, however, in order that Navajo communities may have reasonable access to trading posts.

In Table 99, p. 97, are presented the ratios of cost of goods sold, gross profit, operating expense, and net profit to sales of the 19 trading posts in 1933. In this table the ratios of net profits to sales are arrayed in ascending order. The starred trading posts are operated by hired managers and the salaries of hired managers are included in operating expense, whereas in the case of unstarred trading posts, no salary is allowed the owner-operator. A wide variation in net profits will be observed, the lowest being -4.4 percent in the case of a trading post with a slightly less than average operating expense, and the highest being 28 percent in the case of a trading post with a low operating expense.

In Table 101, p. 100, are presented the ratios of sales, gross profit, operating expense, and net profit to cost of goods sold by the 19 trading posts in 1933. In this table the ratios of net profits to cost were arrayed in ascending order and they, too, show a wide range of variation, the lowest being -4.7 percent in the case of a trading post with a low ratio of sales to costs, and the highest being 44 percent in the case of a trading post with a relatively high ratio of sales to costs. The average ratio of sales to costs amounted to 135.5 percent; gross profits to costs, 35.5 percent; operating expense to costs, 18.7 percent; and net profit to costs, 16.8 percent. These variations may probably be explained in part by the price policy of the individual trader, in part, by his bargaining power in the wholesale market, in part by his volume of business, and in part by his ratios of expense to costs.

Table 94

Showing total sales, cost of goods sold, gross profit, operating expense, and net profit, of 19 widely-distributed trading posts for 1933, percentages, and stock turn for the year.

Navajo-Hopi Reservation.

		Percent on sales	Percent on costs
Sales	\$701,610.09	100.0	135.5
Inventory 1/1/33 -	\$139,987.85		
Purchases	512,496.42		
Total	\$652,484.27		
Inventory 12/31/33-	134,771.61		
Cost of Goods sold.....	\$517,712.66	73.8	100.0
Gross Profit.....	183,897.43	26.2	35.5
Operating expense.....	96,737.36	13.8	18.7
Net Profit.....	\$87,160.07	12.4	16.8

Average rate of stock turn for the year, 5.1 times.

Table 95

Showing average sales, cost of goods sold, gross profit, operating expense, and net profit, of 19 widely-distributed trading posts for 1933, percentages, and stock turn for the year.

Navajo-Hopi Reservation.

		Percent of sales	Percent of costs
Sales	\$36,926.85	100.0	135.5
Inventory 1/1/33 -	\$7,367.78		
Purchases	26,973.49		
Total	\$34,341.27		
Inventory 12/31/33	7,093.24		
Cost of goods sold . . . . .	\$27,248.03	73.8	100.0
Gross Profit . . . . .	9,678.82	26.2	35.5
Operating expense . . . . .	5,091.44	13.8	18.7
Net Profit . . . . .	4,587.38	12.4	16.8

Average rate of stock turn for the year, 5.1 times

Table 96

Showing comparisons of operating results between 1337 chains operating 291,401 store years from 1913 to 1930, inclusive, representing 26 kinds of business and 19 trading posts in 1933.

Navajo-Hopi Reservation

	Chains*		Trading Posts	
	Average	Percent of sales	Average	Percent of sales
Sales . . . . .	\$87,476.	100.0	\$36,927.	100.0
Cost of merchandise sold.	63,499.	72.6	27,248.	73.8
Gross margin or profit ..	23,977.	27.4	9,679.	26.2
Operating expense .....	20,088.	23.0	5,091.	13.8
Net operating profit ....	3,889.	4.5	4,587.	12.4
Stock turn	6.0 times**		5.1 times	

Relative to sales, the percentage operating expense of the trading posts is only 60 percent of that of the chains, while the percentage net operating profit of the trading posts is 276 percent of that of the chains.

\*Senate Document No. 40. Chain Stores, Sales, Costs, and Profits of Retail Chains, 1933. Page 7, Section 4, Table 1.

\*\*Senate Document No. 40. Chain Stores, Sales, Costs, and Profits of Retail Chains, 1933. Page 14, Section 6, Table 5.

Table 97

Showing comparisons of average sales, gross profit, operating expense, net profit, and turn-over of 427 retail chain stores in the Mountain States in 1928, and 19 trading posts, 1933,

Navajo-Hopi Reservation

	Mountain States*	Percent of sales	Trading Posts	Percent of sales
Sales average	\$84,917.00	100.0	\$36,926.85	100.0
Gross Profit	19,191.24	22.6	9,678.82	26.2
Operating expense	16,388.98	19.3	5,091.44	13.8
Net operating profit	2,802.26	3.3	4,587.38	12.4
Stock Turn	4.1 times		5.1 times	

\*Senate Document No. 99. Chain Stores, Miscellaneous Financial Results of Retail Chains, 1934. Section 10, Page 40, Table 30.

Table 98

Showing comparisons of operating results between 940 general merchandise store years, 1913-1930, and 19 trading posts in 1933.

Navajo-Hopi Reservation

	Chains*		Trading Posts	
	Average	Percent of sales	Average	Percent of sales
Sales .....	\$97,229.	100.0	\$36,927.	100.0
Cost of merchandise sold ..	77,617.	79.8	27,248.	73.8
Gross margin or profit ....	19,612.	20.2	9,679.	26.2
Operating expense .....	16,058.	16.5	5,091.	13.8
Net operating profit .....	3,554.	3.7	4,587.	12.4
Stock turn**	3.4 times		5.1 times	

\*Senate Document No. 40. Chain Stores, Sales, Costs, and Profits of Retail Chains, 1933. Page 8, Section 5, Table 2.

\*\*Senate Document No. 40. Chain Stores, Sales, Costs, and Profits of Retail Chains, 1933. Page 14, Section 6, Table 5.

Table 99

Showing ratios of cost of goods sold, gross profit, operating expense, and net profit to sales, 19 trading posts in 1933, arrayed in ascending order of sales, Navajo-Hopi Reservation

Trading Post	Percentage of total sales**	Ratios of			
		Cost of goods sold to sales	Gross profit to sales	Operating expense to sales	Net profit to sales
B	1.8	92.5	7.5	11.9	-4.4
*L	2.0	68.0	32.0	16.9	15.1
Q	2.2	73.1	26.9	12.2	14.7
*E	2.8	77.4	22.6	16.1	6.5
I	3.0	65.2	34.8	21.9	12.9
C	3.4	87.9	12.1	12.6	-.5
*J	3.5	71.1	28.8	14.2	14.6
G	3.6	81.5	13.5	11.9	1.6
*A	3.7	78.0	22.0	22.2	-.2
*N	3.7	68.4	31.6	14.8	16.8
K	4.6	80.7	19.3	9.2	10.1
P	4.8	82.4	17.6	4.4	13.2
M	5.4	77.0	23.0	17.1	5.9
H	5.9	78.0	22.0	11.8	10.2
*F	7.8	69.1	30.9	23.3	7.6
D	8.0	79.0	21.0	18.6	2.4
S	8.5	63.6	36.4	8.4	28.0
R	9.1	71.4	28.6	8.3	20.3
O	16.2	67.9	32.1	12.9	19.2

\*Denotes posts operated by hired managers.

\*\*Of 19 trading posts - indicating relative sizes.

Comparison of Operating Results of 19 Trading Posts with 6 of them which were Manager-operated and 6 which were Owner-operated. In Tables 99 and 101, both paid manager-operated and unpaid owner-operated trading posts were included in the averages to indicate the general average operating results as found. The six manager-operated trading posts were owned either wholly or in part by corporations, and the managers' salaries were fixed and definite, while in the case of the owner-operated trading posts no manager was actually employed. In only two cases out of 13 did the owner-operators claim a salary and these appeared to be family budgetary limitations on personal and family expenses rather than real salaries. In the other 11 cases no salaries were claimed. To have imputed salaries in the entire 13 cases of owner-operated trading posts would have added an element of unreality to the operating results.

Apparently the 6 trading posts having paid managers were more capably operated from the viewpoint of net profits than the 6 owner-operated trading posts used in the comparisons. It will be noted that while the 6 paid manager-operated and the 6 unpaid owner-operated trading posts were approximately the same size and both groups well below the average of the trading

posts studied, the ratio of cost to sales of the 6 manager-operated trading posts was 72 while in the case of the owner-operated it was 81; it will also be noted that while the operating expense of the manager-operated trading posts averaged higher than those of the owner-operated, the net profits of the manager-operated were 10.1 percent of sales, which compares with only 5.7 percent of net profit to sales in the case of the owner-operated.

Table 100

Showing average ratios of cost of goods sold, gross profit, operating expense, and net profit to sales of 19 trading posts, 6 manager-operated, and 6 owner-operated trading posts, the two last-mentioned groups having similar average sales - both groups being below average size.  
Navajo-Hopi Reservation

1933			
<u>Ratios of</u>	Average of 19 Trading Posts	Average of 6 Manager- Operated	Average of 6** owner- Operated
Percent of total sales*	5.3	3.9	3.7
Cost to sales	73.8	72.0	81.0
Gross profit to sales	26.2	28.0	19.0
Operating expense to sales	13.9	17.9	13.3
Net profit to sales	12.4	10.1	5.7

\*Indicating relative average size of trading posts in each group.

\*\*These 6 trading posts were selected from the 13 owner-operated trading posts because of their relative size being more directly comparable with that of the 6 manager-operated stores included in the table.

Table 101

Showing ratios of sales, gross profit, operating expense, and net profit to cost of goods sold, 19 trading posts in 1933, arrayed in ascending order of sales, Navajo-Hopi Reservation

Trading Post	Percentage of total cost of goods sold**	Ratios of			
		Sales to Costs	Gross Profit to Costs	Expense to costs	Net Profit to costs
B	2.3	108.2	8.2	12.9	-4.7
*L	1.8	147.2	47.2	24.9	22.3
Q	2.1	136.8	36.8	16.7	20.1
*E	3.0	129.3	29.3	20.9	8.4
I	2.7	153.4	53.4	33.7	19.7
C	4.0	113.8	13.8	14.4	-.6
*J	3.3	140.5	40.5	20.0	20.5
G	4.2	115.6	15.6	13.8	1.8
*A	3.9	128.2	28.2	28.5	-.3
*N	3.5	146.3	46.3	21.7	24.6
K	5.0	123.9	23.9	11.4	12.5
P	5.4	121.3	21.3	5.3	16.0
M	5.6	129.9	29.9	22.2	7.7
H	6.3	128.2	28.2	15.1	13.1
*F	7.4	144.7	44.7	33.7	11.0
D	8.5	126.7	26.7	23.6	3.1
S	7.3	157.3	57.3	13.3	44.0
R	8.8	140.1	40.1	11.7	28.4
O	14.9	147.3	47.3	19.0	28.3

\*Denotes posts operated by hired managers.

\*\*Of 19 trading posts - indicating relative sizes.

Details of operating expense. It will be noted from Table 102, p. 100, that cash withdrawals for personal use were not allowed as operating expense but were considered as withdrawals from capital. Merchandise withdrawals from capital. Merchandise withdrawals were allowed in cases where hired managers received merchandise as a part of their salaries. In the case, however, of owner-operators, merchandise withdrawals were considered as withdrawals from capital. All salaries of hired managers and clerks were allowed as operating expenses.

With reference to depreciation, it was assumed that none should be allowed on stone buildings as allowances for repairs should sustain their value, but in the case of frame buildings, up to 5 percent per annum was considered allowable depreciation.

If, however, all salaries, merchandise withdrawals, depreciation and miscellaneous items had been allowed as expense, the percentage of net profits would have been 11.4 instead of 12.4 percent, as shown in Table 95, p. 95. Again, had we also allowed \$21,067.66 of personal cash withdrawals as expense,

then the net profits of the 19 trading posts would have been 8.4 percent of sales. This, however, is apparently making the operating expenses of the trading posts studied excessively heavy, as their operating expenses should be lower than the general average of merchandise stores in the United States, a large proportion of which pay rent and city taxes, which is estimated at about 13.6 percent of sales.

Table 102

Showing details of operating expense allowed and disallowed for  
19 Navajo-Hopi Trading Posts for the year 1933.  
Navajo-Hopi Reservation

Items of Expense	Amount	
	Allowed	Disallowed
*Salaries and Wages.....	\$37,224.31	\$ 3,000.00
Bond.....	165.55	
Taxes.....	6,563.85	
Freight.....	5,914.18	
Cash withdrawals, personal.....		21,067.66
Auto expense.....	4,701.71	
*Merchandise withdrawals.....	2,726.37	2,320.00
Repairs.....	5,293.89	202.75
Interest.....	5,700.37	
Insurance.....	3,910.10	
Fuel, etc. ....	5,007.18	120.00
Depreciation.....	10,196.84	1,241.85
Miscellaneous.....	9,333.01	386.23
	\$96,737.36	\$28,338.49

\*In cases of stores hiring managers paid partly in cash and partly in merchandise, merchandise withdrawals were allowed as a part of salary expense. In cases of owner-operated stores, merchandise withdrawals were not considered as expense but as withdrawals from capital.

#### Wholesalers

No comprehensive study of the wholesalers serving the trading posts on the Navajo-Hopi Reservation was contemplated in connection with this study. It was thought, however, that some general information concerning their functions and services would be helpful to an understanding of Navajo trading.

As previously indicated, before beginning the gathering of data, a conference was held with representatives of wholesale houses, including the Gallup Mercantile Company, the Gross-Kelly Company, and Kirk Brothers of Gallup, New Mexico; and Babbitt Brothers Trading Company of Flagstaff, Arizona. No representative of the Progressive Mercantile Company of Fruitland, New Mexico, was present at the conference, but they were visited later. Their services have been previously discussed.

As called upon, the wholesalers very courteously provided such of the information requested as was available.

Services rendered by wholesalers. The wholesalers serving the Navajo country, like wholesalers elsewhere, finance, assemble, warehouse, and distribute merchandise of the kinds of qualities demanded by retailers on the reservation. They buy in volume from mills, factories, large wholesale merchants, jobbers, brokers, or other distributors, and sell in lesser volume at wholesale to the trading posts as retail establishments. They sell to the traders either for cash or on account but, since the traders must sell in large measure to the Indians on account, the wholesalers, in turn, necessarily extend considerable credit to the traders.

As indicated elsewhere, not all traders pay the same price for a given item and quality of merchandise delivered at the trading post. Trucking rates varied from \$0.25 to \$2.00 per cwt., depending on the distance and condition of roads. If, for example, the trader pays in cash, he is in position to bargain in the wholesale market and usually receives not only the lowest consistent wholesale price but the usual discounts, varying from 1 to 2 percent or more, depending upon the quantity and kind of merchandise purchased. Payments within 10 to 15 days are generally considered as cash and are allowed the usual discounts, while payments made between 16 and 60 days from delivery date are usually net. Accounts extending longer than 60 days are generally subject to an interest charge of 8 percent. Inasmuch as the trading post business is conducted very largely on credit, many of the posts must be carried by the wholesalers from 60 days to 6 months or, in exceptional cases, longer. The wholesaler, therefore, not only finances his own business establishment but helps to finance the trading posts as retail establishments.

Since the trader receives payments on Indian accounts largely in Indian products, the wholesaler receives these products, in lieu of cash, in payment of accounts due him by the trader. In the Navajo country, therefore, both wholesaler and retailer must be experienced not only in the extension of credit but also in the merchandising of both manufactured and Indian products. The wholesaler must maintain connections through which he can dispose of wool, lambs, rugs, and other Indian products in volume. The wholesaler keeps abreast of market price movements and keeps the traders advised. If necessary, the wholesaler advances cash up to 50 percent of the estimated or affirmed market price of wool, lambs, and pinons. The trader assembles the Indians' wool, for example, and either sells it to the wholesaler outright in the grease or has the wholesaler consign it to a commission firm in the Boston wool market. In the latter case, the trader bears all expenses, such as transportation, financing, scouring, and handling or selling charges.

Lambs accepted by the trader on account are assembled and driven to a railroad shipping point, where they are either delivered to the wholesaler or sold to a local buyer. In the absence of lamb buyers, the wholesaler may accept the lambs on account and feed them out at some convenient feeding point enroute to the finished lamb market.

Rugs accepted by the traders are sold through a number of channels, either locally, by mail order, or delivered to the wholesaler on account. The wholesaler advances no cash for the purchase of rugs. Of course, the wholesaler must find markets for the rugs which he accepts on accounts. Some are sold at retail, others by mail order, others by travelling salesmen selling in wholesale lots only, or through distributors, such as department stores and curio shops, in distant towns and cities. In some cases, the manufacturers or distributors of merchandise, such as saddles or coffee, may accept rugs of a wholesaler or a trader in the Navajo country in settlement of accounts and redistribute them in either wholesale or retail lots. The chief outlet for Navajo rugs is the tourist trade in the Southwest.

Pinon nuts purchased by the traders from the Indians are either accepted by the wholesalers on account or paid for in cash. The bulk of this crop is handled locally by the Gallup Mercantile Company through a subsidiary, the Leo Agress Company, Inc., of Albuquerque, New Mexico. At Albuquerque, this Company operates a cleaning, roasting, and polishing plant, where the nuts are processed and repacked in 5-pound cotton bags and 100-pound burlap bags for shipment to the New York market. Some pinons are sold through other distributors in New York City and in minor markets, such as Los Angeles, San Francisco, and Chicago. The wholesaler may advance to the trader up to 50 percent of the estimated or affirmed price of pinon nuts.

In quoting wholesale prices on either merchandise or Indian products to the traders, the wholesalers follow the wholesale price movements of the various commodities. Wholesalers operate on a relatively narrow margin, which varies somewhat with the credit risk assumed and the type or kind of commodity handled. Wholesalers reported an average markup on sales of about 10 percent, though some of them reported as low as 8 percent on staples, 10 percent on dry-goods, including shawls and robes, and 15 percent on canned goods. Markups as low as 5 percent on feedstuffs and flour were reported. On highly perishable products the markups are necessarily higher. The trader who has adequate warehouse facilities and buys for cash in large volume is entitled to lower wholesale prices than the trader who buys in small quantities and requires extensions of credit. Indicative of the credit operations of the wholesalers, 37 trading posts studied owed wholesalers \$127,220.22 on January 1, 1933, or an average of \$3,438.37 per trading post.

It may be interesting to observe how the traders actually settle their accounts with the wholesalers. One wholesaler reported that normally the traders settled their accounts with his firm as follows: Cash, 20 percent and Indian products, 80 percent. In 1934, however, cash payments amounted to 40 percent and payments in Indian products, 60 percent. Of the Indian products applied on wholesale accounts, about 35 percent was in wool; 35 percent in lambs; 10 percent in hides and pelts; 10 percent in pinons; 7.5 percent in rugs; and 2.5 in Indian handmade silver jewelry. The higher percentage of payments in cash in 1934 may be attributed to Indian Emergency Conservation Work and Soil Erosion Service payrolls on the reservation.

A second wholesaler reported receiving payments on accounts 20 percent in cash and 80 percent in Indian products. Of the Indian products, 50 percent was in wool; 25 percent in lambs; 12.5 percent in rugs and silver jewelry; and 12.5 percent in hides and pelts.

A third wholesaler reported receiving 50 percent in cash; 30 percent in wool; 17 percent in hides and pelts; and the remainder in miscellaneous products.

A fourth wholesaler reported receiving only 5 percent in cash; 25 percent in wool; 15 percent in lambs; and 55 percent in rugs.

A fifth wholesaler reported receiving very little cash; about 37 1/2 percent in wool; 37 1/2 percent in lambs; 20 percent in rugs; and the remainder in hides, skins, pelts, and minor products.

Obviously, the wholesalers occupy a highly important position not only in Indian trading but also in Navajo economy and life. Without their help in financing the original purchase of many of the trading posts and their extensions of credit during adverse times, as well as their willingness to accept on account and find markets for Indian products, many Indian traders would have doubtless been unable to start in business, or continue through periods of depression.

Because of the obligations of the traders to wholesalers, however, many of the traders may be unable to bargain most effectively either for lowest prices in the wholesale markets or for highest prices for Indian products. Generally speaking, the trader in the strongest position to serve his Indian customers effectively and well is the one possessing both business ability and financial independence. In addition to these qualifications, he must also possess a genuine human interest in Indian well-being.

#### Navajo Credits

In Table 103, p. 104, are shown the total and average accounts receivable\* of the trading post reporting as of January 1 of each year from 1929 to 1934, inclusive. While the totals vary with the number of trading posts included in the figures, the averages should reflect fairly well variations in accounts receivable on January 1 of each year. It will be understood, of course, that the amount of accounts receivable on January 1 of a given year is the result of the business operations the preceding year. Taking January 1, 1929, as reflecting business operations in 1928, as 100 percent, the accounts receivable had dropped to 77.4 percent by the end of 1930. This is indicative of the relative prosperity prevailing over the greater part of 1929. During 1930, the first year of the depression, the Indians became more deeply indebted so that on January 1, 1931, the total accounts receivable were 103 1/2 percent of January 1, 1929. During 1931, credits became tighter at the trading posts and every effort was made to collect accounts so that the total accounts receivable on January 1, 1932, were 92.9 percent of those of record on January 1, 1929. By January 1, 1933, total receivables had declined to 80.1 percent of those of record on January 1, 1929, and by January 1, 1934, after 6 months of public works payrolls, receivables had declined to 70.9 percent of those of record on January 1, 1929.

\*Indian credits receivable, it will be recalled, were discounted 15 percent. The figures shown in Tables CII, CIII, and CIV, therefore, represent about 85 percent of the actual Indian accounts on the books on January 1 of each year.

Table 103

Showing the total and average amounts of Indian indebtedness to trading posts, including both open and pawn accounts, as of January 1, 1929 to 1934, inclusive, and the percentage of variations from 1929.

Navajo-Hopi Reservation.

January 1	No. of posts reporting	Secured and Unsecured		Percentage of 1929
		Total	Average	
1929	23	\$204,686.38	\$8,899.41	100.0%
1930	28	192,960.46	6,891.45	77.4
1931	33	304,027.44	9,212.95	103.5
1932	39	322,440.66	8,267.71	92.9
1933	41	292,069.42	7,123.64	80.1
1934	42	265,198.48	6,314.25	70.9

Table 104

Showing the total and average amounts of Indian accounts receivable, not including pawn, as of January 1, 1929 to 1934, inclusive, and the percentage variations from 1929.

Navajo-Hopi Reservation

January 1	No. of posts reporting	Accounts Receivable		Percentage of 1929
		Total	Average	
1929	23	\$155,497.80	\$7,195.56	100.0%
1930	28	151,275.61	5,402.70	75.1
1931	33	240,432.30	7,285.85	101.3
1932	39	253,709.31	6,505.37	90.4
1933	41	231,760.30	5,652.69	78.6
1934	42	229,315.15	5,459.88	75.9

It will be noted that the number of trading posts included in the averages vary from 23 on January 1, 1929, to 42 on January 1, 1934. Our sample, therefore, varying from more than 25 to more than 50 percent of the total number of trading posts on the reservation, may be considered a very good one.

In Table 104, p. 104, are shown the total and average Indian accounts receivable, not including pawn, from January 1, 1929 to 1934, inclusive. The trend of percentage variations from 1929 as 100, is shown for succeeding years in a manner similar to that indicated in the preceding table.

In Table 105, p. 106, are shown the total and average pawn accounts receivable at the trading posts as of January 1, 1929 to 1934, inclusive. It

will be noted that on January 1, 1930, the pawn amounted to only 76.1 percent of that of record on January 1, 1929, but that by January 1, 1931, the pawn had increased to 114.9 percent of that of record on January 1, 1929. This is indicative of the hard times that the Indians were then experiencing. Since their unsecured accounts were more restricted, they resorted more and more to the use of pawn for credit. On January 1, 1932, however, the pawn accounts were reduced practically to the level of January 1, 1929. By January 1, 1933, pawn was only 76.9 percent of 1929, and by January 1, 1934, after 6 months of public works payrolls, the pawn accounts stood at the low level of 43.2 percent of January 1, 1929. This probably means that the Indians, while earning money on public works, were redeeming their pawn.

As long as the Indians have to depend primarily upon the sale of wool, lambs, and rugs for an income, they will undoubtedly need producer-consumer credits, such as the trading posts now provide. Moreover, as long as Indian credits are unsecured, those who assume the credit risks for the Indians will doubtless be paid by the Indians through relatively higher prices for merchandise for assuming this risk.

This thought, however, must not be construed as a suggestion that the Government should guarantee accounts incurred by the Indians at the trading posts, or that the power of attachment be applied to the property of the Indians as Government wards.

A vitally important phase of Navajo education in the future will be how to save and accumulate money and to conduct business with the trader on a cash basis. The Navajo must learn to look upon money as he now looks upon sheep and jewelry, not only as a medium of exchange but also as a store of wealth. It is difficult to see how the Navajos will learn this lesson as long as they have no local deposit or credit facilities available to them. Probably they would use such facilities if they were unaffiliated either with the local trading posts or the Indian agencies, to both of which they are now indebted. The Navajos prefer livestock and jewelry as stores of wealth because they are tangible goods which can be carried about and protected by them as they move about on their ranges.

What is needed is a local producer-consumer credit agency which may also be used as a place for the deposit and withdrawals of funds at will. In the making of loans, such an institution would require reasonable security. It follows, therefore, that the Indian would have to become financially responsible to his lending agency. This would require the use of wool, lambs, and probably rugs, as security for loans. Should the Indian become accustomed to the use of such an agency, he might thereafter purchase more of his merchandise on a cash instead of credit basis at the trading posts.

The writers do not assume to pass judgment upon the question whether the Navajos are capable of wisely using and maintaining such a credit agency at their present stage. If, under existing laws, or Navajo customs, it should prove impracticable to create such an agency, there appears to be no satisfactory alternative for the present, at least, for trading post and Government reimbursable credits. The first of these is archaic and wasteful to all concerned, while the latter does not appear conducive to the development of a sense of financial responsibility on the part of the Indian.

Table 105

Showing the total and average amounts of pawn on hand on January 1, 1929 to 1934, inclusive, and percentage variations from 1929. Navajo-Hopi Reservation.

January 1	No. of posts reporting	Pawn		Percentage of 1929
		Total	Average	
1929	17	\$38,188.58	\$2,305.21	100.0%
1930	21	41,684.85	1,984.99	86.1
1931	24	63,595.14	2,649.80	114.9
1932	30	68,731.35	2,291.05	99.4
1933	34	60,309.12	1,773.80	76.9
1934	36	35,883.33	996.76	43.2

SUMMARY

1. This is a preliminary study designed to pave the way for annual systematic appraisals of Navajo trading as a business affecting the welfare of both traders and Indians. On the basis of such appraisals, Navajo trading should be made more effectual, purposeful, and more generally serviceable to all concerned.

2. The Navajo country is a high, much-eroded, semi-arid plateau situated in northeastern Arizona, northwestern New Mexico, and southern Utah, averaging approximately 200 miles from east to west and 120 miles from north to south, comprising more than 15 million acres of arid grazing lands.

3. The climate of the Navajo country is generally agreeable and invigorating to both man and beast the greater part of the year.

4. Pre-historically, this area was peopled by cave dwellers, cliff dwellers and Pueblo, or village dwellers who had evolved a civilization uniquely adjusted to environment. They grew crops, such as corn, beans, and squashes, spun and wove, and made pottery for family use.

5. The area is now peopled by two strikingly different cultures, but which possess certain elements in common. Apparently, the Hopis are cultural if not lineal descendants of the cliff dwellers. They are a sedentary, agricultural, village people, who, having suffered from drought and famine in the past, are provident and accumulate food supplies for winter or years of adversity.

6. In contrast, the Navajos are traditionally a nomadic people, who are only gradually settling down to a semi-nomadic, pastoral shepherd life. They are a care-free kind of people, whose principal diet is meat, and who store up little if any vegetable food materials for winter, or for future use. Having few, if any, definitely fixed or permanent habitations,

living in one place in the winter and another in the summer, they accumulate only such equipment and food reserves as they can carry about with them from place to place. In the course of a year, the Navajo family kills anywhere from 25 to more than 100 sheep and goats for meat, or an average of from 40 to 50 per family. The greater portion of the remainder of their diet is purchased at the trading posts on time and is eventually paid for with wool, lambs, rugs, or other Indian products.

Their nomadic pastoral tendencies must be taken into consideration when planning changes in their economy to meet changing conditions. It might prove futile, for example, for anyone to attempt to change them suddenly from a pastoral to an agricultural people, from a semi-nomadic to a sedentary village people, or from a people living in rather temporary hogans, or houses, to a people with definitely fixed habitations. Changes in these directions will probably come slowly through a process of evolution rather than through sudden or revolutionary changes.

Obviously, they could well afford to do more farming supplementary to their grazing enterprise, but it is to be questioned whether in so arid a country a relatively dense population of Navajos could be made self-reliant and economically secure by abandoning their pastoral enterprises altogether and adopting dry-land and storm-water irrigation farming as a complete substitute. Farming, therefore, would evidently help the Navajos to have a better diet and to be more self-sustaining, but it is doubtful whether in the absence of grazing this type of farming, dependent directly upon rainfall, can be relied upon to sustain continuously an ever-increasing population in the Navajo country.

7. The Navajo trading posts render certain essential economic and social services to the Navajo people. They provide the Navajos with an available source of merchandise, on the one hand, and an outlet or a market for Navajo products, such as wool, lambs, and rugs, on the other.

The trading posts tend to be of a size that can be operated by a single trader family, although some are much larger than this, while others are smaller. As a rule, the trading posts doing the larger volume of business are those located at the more strategic trading points. Apparently, most of the trading posts are too small for the greatest efficiency either in buying or in selling merchandise and Indian products. Efficiency, therefore, has evidently been sacrificed to a considerable extent in order to make the trading posts sufficiently numerous and convenient to the Indians as customers. If lower prices for merchandise sold to the Indians is a major objective, the trading posts should be less numerous, probably not more than 40 or 50 in all, capably managed as business establishments, and trading placed upon a cash basis. Among the more important factors affecting retail prices on the reservation are the small size of most of the trading posts, the absence of effective competition, the extraordinary business risks assumed by the traders, including large amounts of unsecured Indian credit, buying and selling wool and lambs "open", or without price protection, the possibility of being closed out of business at any time by cancellation of license, declining Navajo resources accompanied by increases in Indian population, and growing preference on the part of the Indians for manufactured goods.

8. The traders, as a rule, are hard-working men and women, who speak at least "trader" Navajo, and are experienced in both the sale of merchandise on unsecured credit and in the buying and marketing of Indian products. As white people, they live rather isolated lives in the Indian country and render important social as well as economic services to the Indians.

9. Everything considered, the financial condition of the trading posts appeared generally sound. According to the data gathered from the traders, average cash and Indian accounts receivable were more than sufficient to meet average current liabilities throughout the depression. Delivered wholesale prices at the trading posts seemed to vary with the volume of sales, the quality of goods purchased, and the financial condition and business ability of the individual traders. Markups and retail prices on particular kinds and qualities of goods appeared to be higher than those prevailing in nearby towns and cities.

10. Considered as a percentage either of costs or sales, the gross profits of the trading posts were not materially different from those realized by similar lines of business in towns and cities. The trading posts, however, probably pay somewhat higher wholesale prices on the average, have higher markups and retail prices, and realize a higher percentage of net profits. This higher percentage of net profits may be attributed, in part at least, to the lower average operating expenses of the trading posts, which were 13.8 percent of sales in 1933 compared with 16.6 percent to 23 percent for chain stores. This lower operating expense is probably explained by the fact that the traders own their own buildings and pay no site rent. Their salary and wage account is relatively low because many of the traders and their families do their own work, including clerking, and have lower taxes than are customary in the towns and cities. Consequently, the net operating profits of the trading posts are higher than those of the businesses with which the trading posts are compared. On the average, however, the trader and his family at the trading posts analyzed had a net profit of only \$4,587.38 per store in 1933. Apparently, this amount of net income is below that of more prosperous times. This amount can hardly be considered excessive when viewed from the standpoint of the capital invested and the risks assumed by the trader. Out of this fund, the trader and his family must live and enhance their capital.

11. The task, therefore, of improving trading both as a business and as a service to the Indians as consumers, is not necessarily one of revolutionary change, but rather one of evolution and improvement on the part of the traders as business men, on the one hand, and of the Indians as patrons, on the other. The traders will doubtless be able to improve their business efficiency by keeping better books and from them gaining a better understanding of the factors influencing their profits or losses. The Indians must learn to conserve their resources and improve the quality of their products both for home consumption and for exchange at the trading posts. The responsibility is also theirs to minimize the credit risk assumed by the traders by meeting their just obligations when due and resisting the temptation to incur greater obligations than their resources warrant. Apparently, the Navajos will not assume these responsibilities so long as the Government or the traders will assume them.

12. In their efforts to improve their economic condition, the Navajos must learn to cooperate, not only among themselves but with the Government. They should cooperate, for example, in the improvement and marketing of their sheep, wool, lambs, rugs, and other products, and in the development of community life. Thus far, cooperation among the Navajos has been strictly informal and restricted largely to family or kinship groups. Interest in tribal affairs is limited more particularly to what the tribe can do for the individual than to what the individual can contribute to the welfare of the tribe. Cooperation, therefore, should logically begin with family and community problems and be extended to those of the tribe. Producer cooperation, as in the improvement and marketing of sheep, wool, lambs, and rugs, and the accumulation of food reserves to meet future needs, might take precedence over consumer cooperation. At the present time, for example, there is urgent need for cooperation in the matter of sheep reduction, range improvement, and the creation of alternative sources of income while incomes from grazing are necessarily curtailed below minimum subsistence requirements. Consumer cooperation might best be deferred until some measure of success has been achieved in one or another of the simpler and more readily-accomplished forms of cooperation.

13. Apparently, the only satisfactory alternative for trader credits would be for the Indians eventually to develop and maintain their own banking and credit institution from which they could borrow funds for financing production and living between market seasons and to which they could become definitely responsible for their obligations. In the absence of such facilities, it is difficult to visualize how the average Indian can become accustomed to saving money, borrowing and repaying, buying merchandise for cash instead of on credit, and becoming generally more provident and forward-looking. To prepare the Navajos, therefore, for the ultimate responsibility of assuming their own credit risks and thus reducing the costs of merchandise bought while improving the quality and prices of products sold, consideration should be given to the development of cooperative banking and credit facilities.

14. In keeping with the pastoral habits and customs of the Navajos, consideration should be given to the possibilities for developing community processing and warehousing facilities, where the Indians might process adequate supplies of meats, fruits, and vegetables and store them away for future use. At the present time, they are inclined to use the trading posts as a warehouse, where they sell their surplus corn, beans, alfalfa, or other non-perishable products and buy them back later as needed, at higher prices.

15. What appears to be needed most at the present time is a five-to ten-year plan whereby the Indians may eventually return to a basis of economic self-reliance and self-sufficiency upon which a better balance is maintained between pastoral and farming enterprises and between production for home consumption and production for market. Efforts to rehabilitate the Navajo people call for sound information concerning what they can reasonably be expected to produce, on the one hand, and what they will need as a minimum of subsistence, on the other, while restoring the vegetative cover of their ranges. The restoration of the vegetative cover will, of course, necessitate rather drastic reductions in the number of livestock grazed,

for a few years at least, which will probably reduce Navajo incomes temporarily as much as 40 or 50 percent. In the meantime, the deficit will have to be made up from outside sources, such as employment and wages. Employment, however, should be considered only as a temporary expedient and not as a substitute for normal income from grazing, farming, weaving, silversmithing, and the like. Moreover, employment as a temporary supplement to Navajo productive income should be contingent upon the Indians carrying on a minimum amount of sheep raising, crop production, and arts and crafts work. Otherwise, large numbers of Navajos will probably abandon their stock raising and farming enterprises, lose their range rights, and become largely dependent upon wages for a living. In endeavoring to help the Navajos out of the depression, extreme care should be exercised not to submerge them economically or socially.

Once the facts are known concerning Navajo production and consumption requirements, it may be found that both the Indians and the Government are actually confronted with a problem of over-population on the Navajo reservation. Should this prove to be the case, new sources of income will have to be found either on or off the reservation. If, after making the best possible uses of their resources, the Navajo income proves inadequate still, additional lands may be needed for the extension of grazing and farming. It would seem highly undesirable socially to attempt the solution of the Navajo population problem either now or in the future by throwing the surplus off the reservation and into ineffectual competition with the white laboring classes. Such a course would prove demoralizing to Navajo character and tend to accentuate the unemployment problem. Through selective education, training, and experience, considerable numbers of Navajo youths, depending upon ability, might eventually develop into skilled laborers, artisans, teachers, agricultural extension specialists, clerks, traders, nurses, doctors, or lawyers in either Indian or white communities. Obviously, these changes in Navajo economic activities will both affect and be affected by developments in Navajo trading.

16. To the end that trading may become a more powerful force in the progressive adjustment, or readjustment, of Navajo economy and life, the regulations governing trading should be revised and definitely improved. Obsolete laws and regulations now in effect should be repealed and new and more purposeful ones adopted. These should be consistently and uniformly enforced not only by the administrative authority vested in the Commissioner of Indian Affairs but also by the collective thought and concerted action of trader and Indian organizations and public officials. Such improvements in the regulation of trading should serve the mutual interests of the Indians, the traders, and the public. The traders would profit by the assurance of fair competition among themselves and adequate compensation for superior services rendered the Indians; the Indians would profit in being enabled to live better and more securely on their own resources; and the Nation would profit if some 50,000 Indian citizens living in the Navajo country should become self-reliant and self-sufficing and the Indian Service should thus be relieved of some of the more irksome features of administration.

The Regulation of Indian Trading

The supervision of Indian trading is one of the earliest forms of regulatory activity engaged in either by this Government, or its predecessors, the Colonial governments. The authority of the Federal Government to regulate Indian trading is amply provided for in our Constitution and laws. The Commissioner of Indian Affairs is thus authorized to appoint and license traders and regulate trading with the Indian tribes.

Our Nation has found by long experience that failure to regulate commerce and trade often results in unfair competition among manufacturers, distributors, and retailers and gross injuries or injustices to ultimate consumers. As a matter of protection to the Indians as wards of the Government as well as to the public interest, the wise regulation of Indian trading has long been considered a public necessity, curbing the individual interest when it conflicts with the superior interest of society as a whole.

This authority of the Commissioner of Indian Affairs, provided for in Federal laws, is, of course, embodied in existing regulations pertaining to Indian trading. Apparently, however, with the passage of time some of these regulations as well as supporting laws have become obsolete and need revising in keeping with current requirements.

It is proposed, therefore, that these regulations be revised in a manner consistent with existing laws and helpful alike to both traders and Indians.

Proposed revised regulations.

Sec. 1. The Commissioner of Indian Affairs shall have the sole power and authority to appoint traders to the Indian tribes. Any person desiring to trade with the Indians on any reservation may, upon establishing the fact, to the satisfaction of the Commissioner of Indian Affairs, that he is a proper person to engage in such trade, be permitted to do so under such rules and regulations as the Commissioner of Indian Affairs may prescribe. (19 Stat. L. 200; 31 Stat. L. 1066; 32 Stat. L. 1009.)

Sec. 2. The President is authorized, whenever in his opinion the public interest may require, to prohibit the introduction of goods, or of any particular articles, into the country belonging to any Indian tribe, and to direct that all licenses to trade with such tribe be revoked, and all applications therefor rejected. No trader shall, so long as such prohibition exists, trade with any Indians of or for said tribe. (R.S. 2132.)

Sec. 3. Any person other than an Indian of the full-blood who shall attempt to reside in the Indian country, or on any Indian reservation, as a trader, or to introduce goods, or to trade therein, without a license, shall forfeit all merchandise offered for sale to the Indians or found in his possession, and shall moreover be liable to a penalty of five hundred dollars: Provided, That this section shall not apply to any person residing among or trading with the Choctaws, Cherokee, Chickasaws, Creeks, or Seminoles, commonly called the Five Civilized Tribes: And provided further, that no white person shall be employed as a clerk by any Indian trader, except as such

trade with said Five Civilized Tribes, unless first authorized so to do by the Commissioner of Indian Affairs. (22 Stat. L. 179.)

Comments: In the opinion of the writers, it is equally important, so far as public interest is concerned, that Indians who are traders, as well as white men, should be licensed and regulated, and it is proposed that the laws and regulations be changed with this end in view.

Sec. 4. Every person, other than an Indian, who, within the Indian country, purchases or receives of any Indian, in the way of barter, trade, or pledge, a gun, trap, or other article commonly used in hunting, any instrument of husbandry, or cooking utensils of the kind commonly obtained by the Indians in their intercourse with the white people, or any article of clothing, except skins or furs, shall be liable to a penalty of fifty dollars. (R.S. 2135.)

Comments: It is believed that the law requiring Section 4 is archaic and should be repealed. Indians freely pawn guns, shawls, and probably other articles included in this section at the present time.

Sec. 5. No person employed in Indian affairs shall have any interest or concern in any trade with the Indians, except for and on account of the United States; and any person offending herein shall be liable to a penalty of five thousand dollars and shall be removed from his office. (R.S. 2078.)

Sec. 6. The purchase in small quantities for home use or consumption by Government employees or other, of blankets, baskets, etc., and articles of subsistence offered for sale by Indians, is held not to constitute trading with Indians within the meaning of Section 2078 of the Revised Statutes. (Order, Secretary of the Interior, September 30, 1912.)

Sec. 7. The Secretary of the Interior shall adopt such rules as may be necessary to prohibit the sale of arms or ammunition within any district or country occupied by uncivilized or hostile Indians. If any trader, his agent, or any person acting for or under him, shall sell any arms or ammunition within any district or country occupied by such Indians, contrary to the rules and regulations of the Secretary of the Interior, he shall forfeit his right to trade with the Indians, and the Secretary shall exclude such trader, agent, or other person thus offending, from the district or country so occupied. (R.S. 467, 2136.)

Sec. 8. Arms or ammunition may not be sold to the Indians by traders except upon permission of the superintendent, which will be granted only for clearly established lawful purposes.

Comments: In the opinion of the writers this section is being freely violated or ignored by both traders and Indian agents and should be either eliminated or enforced.

Sec. 9. Application for license must be made in writing on a form provided by the Commissioner of Indian Affairs, setting forth the full name and residence of the applicant and three responsible references. If applicant is a firm, the firm name and the name of each member thereof; the place where it is proposed to conduct the trading post; the capital to be invested

and of this the amount of capital owned and the amount borrowed, or to be borrowed; the name of the lender of the borrowed capital; the date due; the rate of interest to be paid; indorsers and security; copy of any contract or trade agreement, or agreements, oral or written, with creditors or financing individuals or institutions, including any stipulations whereby financing fees are to be paid, directly or indirectly, tending to restrict the trader as a bargainer in the wholesale markets or otherwise to enhance the delivered wholesale costs of merchandise at the trading posts. Failure of applicant for license to furnish complete information concerning both his own financial status and relations with creditors of every kind and to keep the Commissioner of Indian Affairs progressively advised of any changes in said financial status and relations after license has been granted, will be deemed sufficient cause either to refuse license or to cancel license after it has been granted. Application must be accompanied by satisfactory evidence as to the character, experience, and business ability of applicant and his employees and their general fitness to reside on the Indian reservation. Licensed traders will be held strictly responsible for both their own conduct and that of their employees. No employee in the Government Service shall exert any influence, direct or indirect, to help any applicant secure a license or have any interest, present or prospective, in the proposed business or the profits arising therefrom.

Sec. 10. Application shall be accompanied by a statement of the applicant that he will keep and maintain a complete set of books in accordance with approved accounting procedure, including accounts and records of both merchandise and Indian products traded in, which shall at all times be available to the Commissioner of Indian Affairs, or his authorized representative, for purposes of analytical study.

Sec. 11. The licensee shall be the actual local resident manager or operator of the trading post and not a distant owner or financier, and shall be the person directly responsible to the Commissioner of Indian Affairs for the entire operation of the trading post and for any reports required of the trading post by the Commissioner of Indian Affairs, or his duly authorized representative.

Sec. 12. Application must also be accompanied by a bond in the sum of \$5,000, issued by a reputable surety company and approved by the local superintendent of the Indian agency or by the nearest United States judge or attorney for the district in which the proposed trading post is to be located. This bond is renewable each year but may be extended throughout the life of the license, conditioned to such person or persons as will faithfully observe all applicable laws and regulations and in no respect violate them. Individual sureties are no longer acceptable.

Sec. 13. No license shall be granted for a longer period than three years, but a new license may be granted at the end of that time if the Commissioner of Indian Affairs is satisfied that the trade has been conducted properly, and that all laws, regulations, and terms of the license have been duly observed by the trader.

Sec. 14. Application for renewal of license must be made to the Commissioner of Indian Affairs on Form 5-054, through the superintendent at

least three months prior to the expiration of the existing license, and the superintendent must report as to the record the applicant has made as a trader and his fitness to continue under such a license.

Sec. 15. No trader shall carry on trade with the Indians without a license, or continue to trade with the Indians after the expiration of the license except upon issuance of a temporary permit by the Commissioner of Indian Affairs, or his duly authorized representative, pending consideration of renewal of license. In case the trader has neither a temporary permit nor a renewal of license, the Commissioner of Indian Affairs, or his duly authorized representative, is authorized to close the trading post of such trader.

Sec. 16. Traders are not authorized to trade with Indians at any place other than that specified in the license; licenses do not cover either branch stores or authorization to peddle merchandise among the Indians. The business of a licensed trader must be managed by the bonded principal who must reside at the trading post. No trading post shall be operated by an unbonded subordinate.

Sec. 17. No trader will be allowed to lease, sublet, rent, or sell any of the buildings which he occupies, for any purpose to any other person or concern, without the approval of the Commissioner of Indian Affairs. A license to trade with Indians does not confer upon the trader any right or privileges in respect to the herding or raising of livestock upon the reservation. The use of reservation lands, whether tribal or allotted, for such purposes can be obtained by a trader only upon the terms and under the restrictions which apply to other persons. His license gives him no advantage over others in this respect.

Sec. 18. Traders are forbidden to buy, trade for, or have in their possession any annuity or other goods of any description which have been purchased or furnished by the Government for the use or welfare of the Indians. Livestock or their increase purchased by the Government and in possession or control of the Indians may not be purchased by any trader, not a member of the tribe to which the owners or possessors of the stock belong, except with the written consent of the agent of said tribe.

Sec. 19. No trader shall manufacture, or have in his possession or on his premises, or drink, introduce, give away or furnish to anyone, sell, barter, exchange, or dispose of, any ale, beer, wine, whisky, alcohol, or ardent or intoxicating liquor of any kind, or any essence, extract, bitters, preparation, compound, composition or any article under any name, label, or brand whatsoever, which produces intoxication, and any violation of this rule will subject such trader to criminal prosecution, revocation of his license, suit on bond, and removal from the reservation. Traders must exert their utmost efforts to suppress all traffic in intoxicating liquors and promptly notify the superintendent of any known violations of this rule.

Sec. 20. Traders shall not keep for sale, or sell, give away, or use any opium, chloral, cocaine, hashish or Indian hemp or marihuana, or any compound containing either ingredient, and for violation hereof the trader's license shall be revoked.

Sec. 21. Traders shall not keep their places of business open on Sunday. However, this shall not be construed as prohibiting traders from accommodating travellers or Indians coming from a distance to trade in cases of emergency.

Sec. 22. Gambling, by dice, cards, or in any way whatever, is strictly prohibited in any licensed trader's store or on the premises.

Sec. 23. It is the duty of the Commissioner of Indian Affairs, or his duly authorized representative to see that the trading posts are conducted in an exemplary and business-like manner and in the mutual interest of traders, Indians, and the general welfare; that markups above costs, retail prices, gross profits, operating expenses, and net profits of the trading posts are fair and reasonable and are determined in a manner consistent with approved accounting procedure and business practise; and that the markups on staple groceries of all kinds, such, for example, as flour, sugar, coffee, cured meats, fats, lard, and canned meats, milks, fruits, and vegetables, shall not exceed 25 percent on costs, or 20 percent on sales; on highly perishable foodstuffs, including such items as potatoes, fresh fruits, vegetables, and melons, the markups shall not exceed 50 percent on costs, or 33-1/3 percent on sales; on staple dry-goods of every kind, including cotton and woolen yard goods, yarns, hosiery, blankets, shawls, robes, bed quilts, comforts, ready-made clothing, underwear, socks, boots, shoes, overalls, trousers, hats, caps, and rubber goods, the markups shall not exceed 33-1/3 percent on costs, or 25 percent on sales; on notions, necklaces, beads, gloves, patent or proprietary remedies, toilet articles, and similar goods, the markups shall not exceed 50 percent on costs, or 33-1/3 percent on sales; on chinaware, crockery, tinware, and glassware, the markups shall not exceed 25 percent on costs, or 20 percent on sales; on harness, saddles, leather, wagons, agricultural implements, paints, oils, stoves, and hardware, including nails, saws, hatchets, hammers, squares, horseshoes, rope, and all other articles ordinarily handled by a hardware store, the markups shall not exceed 25 percent on costs\*, or 20 percent on sales; markups on feeding stuffs--grains, concentrates, and hays--shall not exceed 20 percent on costs, or 16-2/3 percent on sales; markups on any other items of merchandise handled but not included in the foregoing categories shall be determined and approved by the Commissioner of Indian Affairs, or his duly authorized representative, before said goods are offered for sale; and the gross margins, or profits, of the entire trading post business, before expenses are deducted, shall not exceed 33-1/3 percent on costs, or 25 percent on sales, for the business year.

Sec. 24. It is the duty of the Commissioner of Indian Affairs, or his duly authorized representative, to see that each trader shall maintain and keep current a complete set of books, including all necessary accounts and records covering the operations of the trading post business and keep said accounts and records at all times available at the trading post for the examination and analysis of the Commissioner of Indian Affairs, or his authorized representative. From these accounts and records, it must be possible to determine readily the balances of the following accounts:

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\*Throughout this report the term costs mean net invoice cost plus transportation to trading post, and sales means the amount received for the article.

Gross and net sales of both merchandise and Indian products; merchandise and Indian products purchased during the year; inventories of merchandise and Indian products on hand as of December 31 of each year; a complete and comprehensive accounting for all items of overhead and operating expenses, either paid or due, in the operation of the business. From these records, it must be possible to determine accurately the amounts of gross profits and net profits for the period covered.

Sec. 25. In addition to the foregoing, each trader shall maintain and keep current accurate records of cash received and disbursed, and any balances whether on hand, on deposit, or due the store; the accounts receivable, pawns receivable, and notes receivable; the value of buildings and improvements, trading post furniture and fixtures, and miscellaneous assets, such as automobiles, trucks, or other property essential to the business; a complete and accurate record of all liabilities, including accounts payable, bills payable and notes payable, or other liabilities. Each trader must also maintain an accurate record of his investment or capital account, recording all increases and withdrawals of capital, whether in the form of cash, merchandise, or other property, the amount of equity in the business, and the names of those participating therein and in what proportion.

Sec. 26. Prices charged for any given item of merchandise sold or offered for sale to the Indians shall be on the basis of quality, proportionate to delivered wholesale cost and in keeping with the markups regulations prescribed in paragraph 23. Inferior products, such as canned meats, fruits, and vegetables, or other products below Government standards, sold to the Indians without their knowledge and consent and at prices disproportionate to delivered wholesale costs shall be considered sufficient cause for cancellation of license.

Sec. 27. Credit given Indians will be at the trader's own risk and no assistance will be given the trader by Government employees in the collection of debts against the Indians. Government employees, however, shall not only discourage the Indians from incurring obligations beyond their resources, or normal ability to pay, but also encourage the Indians by both precept and example to pay their honest debts, once such debts are incurred.

Sec. 28. Traders may accept pawn or pledges of personal property from Indians as security for minor accounts, only as follows: Indian-made silver jewelry, such as concho belts, rings, bracelets, necklaces, silver buttons other than those made of coins, silver hat bands, silver mounted bridles and spurs, silver mounted bits, and bowguards; turquoise, coral, or wampum beads and necklaces; shotguns, rifles, pistols; Indian-made saddle blankets and rugs; handmade moccasins; tanned buckskins, tanned goatskins, tanned sheepskins, tanned goat pelts, tanned sheep pelts, and tanned cowhides. No other Indian products shall be accepted as pawns. If such pawns are pledged but not redeemed within eleven (11) months, they shall be advertised in the trader's store by displaying the pawns together with the amount due on them and a notice that such pawns will be due in 30 days. If after 12 months from the date of the original loans, the pawns be not redeemed, they shall become the property of the trader and the amounts for which they were pledged shall be cancelled on the

trader's books. While the trader holds and is in possession of the pawns the Commissioner of Indian Affairs, or his authorized representative, shall hold the trader personally responsible to the Indian for the excess value of the pawns over and above the amount of the pledges. When the trader accepts pawns, therefore, he shall agree with the Indian or a representative of the Commissioner of Indian Affairs upon the value of the articles pawned and give a receipt for them describing them and stating the value of the pawns actually agreed upon by the trader and the Indian.

Sec. 29. Traders must pay the Indians for their products and labor in lawful United States currency, in credit if the Indian is indebted to the trader, or in merchandise if the Indian prefers merchandise to cash. No coercive measures whatever, direct or indirect, shall be brought to bear upon the Indian by the trader to force the Indian to accept merchandise or credit balances, or anything else in lieu of cash. Traders are prohibited from paying the Indians for their products or labor, in credit balances due the Indian, in tokens, credit slips, or store orders.

Sec. 30. Traders shall have but one price at a given time for each and every article of merchandise offered for sale to the Indians, and shall make no price distinction between cash and credit, or barter, transactions. Traders, however, at their option, may offer discounts from regular prices for payments in cash.

Sec. 31. The traders shall keep both their premises and places of business in a clean, sanitary, and presentable condition at all times and shall avoid exposure of foodstuffs to infection from the air, dust, insects, or handling. It shall be the duty of the health officers of the reservation and their assistants to make periodical inspections, recommend improvements, and report thereon to the Commissioner of Indian Affairs, or his duly authorized representative.

32. In compliance with the markup requirements provided in Section 23 of these regulations, retail prices shall be computed on the basis of delivered wholesale costs, at the trading posts to the nearest cent per retail unit sold, and, in retailing, penny change shall be made when the retail price is not 5, or a multiple of 5, cents.

33. No trading post shall be granted the use of more than three acres of tribal land as the site of a trading post.

34. For the use of the land upon which the trading post is located, the trader shall pay to the Commissioner of Indian Affairs or his duly authorized representative for the account of the Navajo Indians a site-rental amounting to not less than \$50.00 per annum. For trading posts whose net sales of merchandise amount to more than \$15,000, the trader shall pay an amount equal to one-third of one percent of annual net sales of merchandise, excluding Indian products sold, the calendar year preceding. These site-rents shall be paid in advance in semi-annual installments on January 1 and July 1 of each year. A new trading post shall pay a site rent at the rate of not less than \$50.00 for the first calendar year or fraction thereof. Site rent contracts shall be subject to cancellation with cancellation of license. In case of cancellation of license, the trader shall be reimbursed for any rentals paid in advance beyond date of cancellation.

35. Traders shall not deal in objects of antiquity removed from any historic or prehistoric ruin or monument on land owned or controlled by the United States. (34 Stat. L., 225).

#### RECOMMENDATIONS

It is recommended that --

(1) The Indian Service employ a thoroughly trained and responsible economic and business analyst to supervise trading in the Navajo country in the spirit of the changes proposed in the regulations and to conduct such economic and social researches and to render such services to the traders and the Indians as may lead to further improvements in Navajo trading, economy and life.

(2) An arbitration committee be created composed of three members; one to be the duly authorized representative of the Commissioner of Indian Affairs immediately in charge of trading, a second to be selected by the United Indian Traders Association, and a third to be selected by the Navajo Tribal Council. The members of this committee representing the United Indian Traders Association and the Navajo Tribal Council shall serve for a period of one year from date of appointment, or until their successors are appointed, and shall serve without compensation.

The duties of this committee would be to investigate and make recommendations concerning the fairness of competition among traders, the quality and prices of merchandise and Indian products, and violations of trading regulations or good business ethics. The findings of this committee, with such recommendations as it may see fit to make should be forwarded to the Commissioner of Indian Affairs for consideration in connection with the administration of Federal trading laws and regulations. The services of such a committee should promote a fine spirit of cooperation with traders and Indians and a better understanding of their mutual interests and responsibilities.

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